

MIND

A QUARTERLY REVIEW

OF

PSYCHOLOGY AND PHILOSOPHY

I.—THE LAST PHASE OF PROFESSOR WARD'S
PHILOSOPHY.

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To the student of English Philosophy in the last quarter of a century the most interesting point is not the general adoption of the idealistic point of view, but the division among idealists themselves between old and new. The origin of the schism, though dating to the eighties, is probably fresh in the memory of most readers. By enveloping all finite forms of being in a timeless and, therefore, processless Absolute, the older idealism seemed to have become untrue to itself and to the spirit of the age. While politicians and reformers were filled with enthusiastic belief in progress, philosophers seemed to be occupied in reducing it to an illusion by representing all effort as a mere meaningless "reproduction" in time of what was already eternally present. Just when people were beginning to realise that all real progress must begin and end in an enhanced value of the individual person, personality was being made to appear to be a contradictory, and, therefore, unreal aspect of an impersonal experience which belonged to nobody and was of nothing. With the evacuation of human life of all intelligible meaning went the impoverishment of the divine. A God who was the god of puppets could only be a puppet god.

The keynote of the revolt was struck in A. Seth's *Hegelianism and Personality* in 1887. Sixteen years later it was taken up in W. James's *Will to Believe*. But the writer who has done most both in the field of psychology and in the theory of knowledge to provide the movement with an alternative metaphysic is undoubtedly Professor Ward. It is the

germ of such a metaphysic which gives its chief philosophical interest to the Article on "Psychology" in the *Encyclopædia Britannica*. It is the development of these germs more than the long-drawn-out controversy with Spencer which gives significance to *Naturalism* and *Agnosticism* now standing as the link between the 'Article' and his recent work on the *Realm of Ends*. How deeply this book had affected the younger generation was seen on the appearance of *Personal Idealism* in 1902, the aim of which was to make obvious the general nature of the task that had to be accomplished in demonstrating the possibility of constructing a spiritual philosophy on the idea of the ultimateness of purposive activity and of personality, without the aid of the idea of an Absolute or other underlying principle of unity. In spite of the great ability of the contributors the book did little to advance the cause they had at heart, partly because the real issue was imperfectly apprehended, partly because the writers, in spite of nominal agreement, started from different premises and were at cross-purposes with one another in their conclusions. Prof. Ward is under no misapprehension as to the problem that has to be faced or the basis that must serve for its solution if anything of value is to be established against the older idealism. The starting-point must be a world of self-determining monads united merely by their co-existence, and forming apparently without other bond of unity a *totum objectivum*; the problem is to explain on this basis the actual constitution of the world as a Realm of Ends. More definitely, assuming the reality of history as established in *Naturalism* and *Agnosticism*, the question is, can we explain the actual course of historical development towards ever greater union and co-operation on the one hand, ever greater individuality of the parts on the other? Can we justify the hope of the continuance of this development and the ultimate triumph of the good? It is this to which he sets himself in what I have ventured to call the last phase of his philosophy as so far expounded.

As the argument is somewhat obscured by the method he adopts, I shall try to summarise it for purposes of reference, at the same time extricating it from what to some will be the main value of the book, the subtle and suggestive discussion of historical doctrines by which it is illustrated.

We are to start with what is merely given at the lower limit—an unstable plurality of individuals all seemingly acting at random. Were these the lifeless atoms of the physicist, it would be inconceivable how any unity could supervene. But on the assumption that they are endowed with spontaneity, we have, from the beginning, a principle of determinate adaptation in the necessity under which each is to conserve

and realise itself. The very fact of coexistence in a medium which they themselves supply, as a kind of precipitate analogous to the habits of individuals, constitutes, from the outset, the basis of a totality—and dispenses with the necessity of providing externally for correspondences by a pre-established harmony. In such a world, everything will be "inchoate but not chaotic," for it is a world of struggle in which the fittest and most typical survive and establish their ways partly by force, partly by prestige. It is on the foundation thus established that future progress is built: this is the *natura naturata* on which the *natura naturans* of the living generation works. What the shape of the building shall be is unpredictable. As we look back, we can trace a certain continuity; as we look forward, all is contingency. Progress is by a series of happy accidents, not by deliberate design. The only uniformity is the need—the materials show nothing but diversity. The stellar universe of movement, without apparent centre, is no inapt symbol of the world of relative order within a general drift of contingency, that we are to picture. It might appear that to secure coherence there must be some prior identity of interest. But this is not so. All that is necessary is that the monads should have like interests, above all that they should have a like interest in the mutual adjustment of claims called justice. This is not Hobbism, for Hobbes brings in universality and necessity "from without". Here there is no without: the objective is implied from the first in the subjective, others in the self. Social development is not bringing two separates together, but a differentiation of the *totum* into self and others which is at the same time a pervasion of the one by the other—issuing in a new reality of a higher or over-individual order. Nor is it Hegelianism. For Hegel seeks by means of the idea of potentiality to make the actual historical result into a logical ground, and thus to read the end into the beginning. For pluralism "reality is entirely actuality; the potential belongs exclusively to abstract thought,"¹ providing no motive, and therefore useless, at the beginning, conducting us to a unity which is at best that of a community, not a personality, and therefore fatal at the end. Yet some unity there must be if we are to suppose development continuous. This may be supplied by the existence of spirits to whom unlike many the whole evolution can be an object, and who have some directing power over it. The actuality of such higher intelligence is the great question of Theism. It is rendered probable not only by the evidences of a higher principle in evolution interposing at certain stages, as, for instance, at the creation of man's moral qualities or to secure other than merely utilitarian features (*e.g.*, æsthetic valuation), but also by the emergence, at the stage of human society, of an over-individual unity. The one limitation on which pluralism must insist is that the higher intelligence shall be a supreme, not an absolute; a *primus inter pares*, not an *ens entium*. Only so can we make room for "a living God with a living world, and not the potter God with a world of illusory clay" which is all that either Absolutism or philosophic theism admits of. Even so we must beware of using this principle as a ground of explanation. It is a practical postulate, a constructive principle of action, but of no use in speculative philosophy.² We know only in part; when the part shall be done away with—we have no idea what the world shall be. From the same premises follow the probability of a future life, "the one fundamental argument for which is not the need of adequate compensations—but for adequate opportunities; not the demand for fairer wages but for fuller work".³

¹ P. 108.² P. 442.³ P. 409.

It is perhaps a thankless task to examine the foundations of a philosophy which seems to ask so little and to promise so much, and which has already received so enthusiastic a welcome in MIND. My apology must be that in philosophy we are concerned not primarily with the value of conclusions, but of the arguments by which they are reached, and that were I in closer agreement with Personal Idealism than I am, I should hold it equally important to examine the basis on which so much depended, to see in particular that the gift did not turn out to be a Trojan horse. What I believe a maturer consideration must show is that just in so far as Prof. Ward remains faithful to his pluralistic assumptions of the *apparatus creativus* that he sets up does he fail to make good his promises, and on the other hand, so far as he makes good his promises he does so by appealing to a principle which he owes to the philosophy he seeks to undermine and which is quite incompatible with his own.

It will be seen from the above analysis that the problem falls into two, roughly corresponding to the two parts of the book. How are we to conceive of the process of history in its beginnings? What guarantee have we of its continuance and completion?

(1) We pass here over the question of the uniform environment which has to be evolved from the contingent behaviour of the primary monads in the manner described but hardly explained in *Naturalism and Agnosticism*. This problem though implied is not directly raised in the *Realm of Ends*. Our attention is directed to the corresponding question of an objective social order which, like that of nature, claims the allegiance of the members. Starting with a plurality of individuals impelled by a blind impulse of self-preservation (*i.e.*, by an end which is primarily private to themselves¹), feeling pleasure and pain according as they find themselves in harmony or discord with their environment we have to explain 'progress' as above defined. This problem has been present with Prof. Ward from the beginning. He raises it in the Article, and answers it in a well-known passage² which is quoted both in *Naturalism and Agnosticism*,³ and in the *Realm of Ends*,⁴ so that it comes to us with the authority of three separate endorsements. Yet I venture to think that few students will fail to recall the misgiving with which they first read it. Why should a creature which has reached the measure of adaptation that enables it to fill its skin at regular intervals in the manner

¹ P. 87.³ Vol. I., p. 298 (2nd ed.)² P. 72.⁴ P. 79.

there described, and thus to survive, endanger its equilibrium by seeking to change its condition at all? Prof. Ward himself feels the difficulty in *Naturalism and Agnosticism* and explains it by an appeal to the principle of satiety. But this only raises new difficulties. How does satiety come to operate at all in a being of various needs and with various modes and occasions of satisfying them? It is the perception of this difficulty that leads the writer in the same passage to equate satiety with the indifference of habit. But this only postpones the difficulty. Why should indifference displease? Only on the assumption that pleasure or excitement is the end of endeavour. But apart from hedonistic implications there is here the further difficulty that displeasure in an action which has ceased to be pleasant may account for change, it will not account for progress—it will account for a shifting of the scene, not for a development of its contents. This difficulty also presses on the writer, and in the *Realm of Ends* he is fain to supplement the principle of self-conservation with an impulse to "betterment" without apparently being conscious of the *petitio principii*. Why should the monads seek betterment, *i.e.*, the development of higher needs, instead of the more frictionless supply of their existing needs? Only on one condition that their nature as potentially something in idea which is only partially and inadequately realised in actuality drives them to seek a form of existence more adequate to their true nature. But to admit this would be to bring in just the conception of ideality or implicitness which Prof. Ward, as we have seen, is pledged to exclude. But this is not all. In the *Realm of Ends* the problem has become specific. What has to be accounted for is not the development of a new kind of existence continuous with the old, but one that replaces the old ends of self-preservation and a more pleasure-giving form of existence by devotion to common ends involving their subordination. It is to meet this that Prof. Ward emphasises, as against Hobbes, the fact of the mutual implication of self and others in a *totum obiectivum* from the first. But a *totum*, if it means anything, is a totality, and it is just this idea of an enclosing unity that it is impossible to harmonise with the assumption of the ultimateness of the plurality. To constitute a totality there must be some inward relation—some unity or identity of content which, however held in the background at the outset, is the spring of the expansive, assimilative process which it is agreed constitutes progress. The difficulty is only evaded by the distinction which Prof. Ward makes between the *like* and the *identical*. Nothing but

identity will here serve. To have like desires in a limited universe, as in Kant's celebrated example, is to set up not unity but opposition. What is required is that the unity should itself be an object of desire, and this involves the idea of a common or identical good. Equally verbal is the reply to the accusation of Hobbism. Prof. Ward claims that upon his theory of the origin of the objective there is no "without": all is in relation to the subject from the first. But this is just what the reader wishes to understand. Does it mean that, from the first, the monads are pledged by their nature to a form of life from which all discrepancy is eliminated and difference transformed into distinctiveness of function in an organic whole? In that case, we have again just the principle of an underlying unity that goes deeper than differences. If it means anything *less*, we are left with ultimately incompatible elements which relatively to each other are a mere without.

That the first is his real meaning seems proved by the course his thought takes at the end of this section when he faces the question of the direction and goal of progress and is fain to borrow the answer from T. H. Green and Prof. Bosanquet, finding its principle, on the one hand, in the recognition of the claims of a common humanity, on the other, in "the fundamental logic of human nature". Unless we are to take this *transitio in aliud genus* as pure inadvertence, it can only mean that Prof. Ward has exchanged his pluralistic starting-point for that of the philosophy he sets out to oppose. Green's conclusion is only possible on the assumption that the starting-point is not a "state of natural selfishness" but a state in which the interest in a common good, (as that is bound up with the nature of a being who has the possibility of self-consciousness), is obscured by the struggle with a natural environment. Prof. Bosanquet's appeal is still more directly to that in man which drives him to a form of life more consistent with his idea with the same kind of insistence as that with which the premises drive the intelligence to the conclusion implied in them.

(2) As might be expected where the question is directly of the guarantee of continuous progress, the movement of thought from an outward to an inward principle is still more conspicuous. At the outset, the writer finds himself embarrassed by the necessity of reasserting the pluralistic starting-point and of seeking for the guarantee in something external to the monads themselves. Instead, therefore, of developing the principle he had reached at the end of the

first part, he sets out on an intricate argument to prove the possibility of the existence of intelligences, perhaps a single intelligence, standing to the world in some closer though apparently no essentially different relation from the subordinate monads. With regard to this argument, I can only repeat what I have already said as to the one by which he tries to render conceivable the starting-point of progress. It is doubtful whether even the most sympathetic reader can have carried away from it anything but a sense of disquiet. In so far as it rests on the supposed necessity of introducing an external agency at certain points in organic evolution in order to account for æsthetic values in nature and moral qualities in man it seems to involve the express repudiation of the principle of continuity which is appealed to in support of it. So far, on the other hand, as it rests on the appearance in society of a unity of a higher over-individual order, it seems to be an express admission of the inadequacy of the account of the evolution of society already offered in the first part of the book. We are as ready as Prof. Ward to acknowledge the principle of epigenesis and to contend that evolution means the appearance of forms of being incapable of being resolved into a mere union of the parts we reach by analysing them. But unless we are to rest content with a frank appeal to miracle, we cannot take this to mean that these higher unities are discontinuous with the parts and unconditioned by them. It can only mean that the category of condition and conditioned is inadequate to meet the situation: that nothing short of a logical or a teleological relation will suffice. It is to this that Prof. Ward himself again comes when he faces the real issue: what guarantee have we of the ultimate supremacy of the Good over the evil? Using the argument that has been the common property of Idealism from the time of Plato, he there tries to show that Good is by its very nature self-consistent, carrying its own victory with it, evil is self-contradictory and carries its own defeat in itself. As the passage is crucial, I may be excused for quoting it:—

“We are wont to say that a struggle between good and evil is now constantly going on, and then our question takes the form: which side, so far as we can judge, bids fair to win? But in fact the question in this form is not truly put. There is no such dualism of good and evil, they are not two co-ordinate powers, in a word there is no *principle* of evil. There is a moral order, but evil is only disorder. This is the grain of truth in the contention so persistently maintained that evil is essentially negative. However woefully men mistake what is their real good, it is this none the less that each one constantly strives for: evil as evil is no man's aim. The devil's aim it is indeed said to be, but we are none of

us pledged to believe in the devil. The struggle with evil then is not a struggle for supremacy like the battle of the gods and the Titans; it is an advance against hindrances which exist only as hindrances, not as beings having ends of their own as Manichæism supposed. The moment the true character of any form of evil is apparent, that moment the struggle to overcome it begins. When, then, we compare the unity and solidarity of the good with the motley many-headed shapes of evil ever at cross-purposes with each other, the conservation common to all forms of good and no forms of evil, when, too, we consider *the close connexion between the good and the true on the one hand, between error and evil on the other*, have we not ground for believing in the eventual triumph of the good, have we not ground for maintaining that such moral evil as we find in the world, terrible though it is, is after all not such as to justify the atheistic position."¹

I have ventured to underline the passage which emphasises the unity of principle of the good and the true. The writer explains in the sentences omitted how all are committed to the good by the nature of desire and will by the same sort of logic as they are committed to the true. The question that forces itself upon the reader is again why, if this is the real guarantee of progress, it should not have been made the principle of the exposition from the beginning. Again the only reply is that to have admitted it to the central place would have been to concede that going deeper than the differences in individuals there is a principle at work which requires the transformation of the apparent original plurality into an essential interdependence—their quasi-individuality into a real one, and this would have meant a reconstruction of the whole philosophy.

Such a reconstruction I believe to be necessary. The question of what alteration in the assumptions which underlie Personal Idealism would be entailed lies outside the scope of this paper. What I believe has been demonstrated by this courageous attempt to bring Personal Idealism to the test of a single issue is the impossibility of explaining the real world that History reveals on the basis of a conception of the individual which rests on taking activity, conation, self-initiated process for an ultimate as this philosophy seeks to do. What obscures this to the writer is, as we have seen, the fear of an Absolutism which, by representing human life as a mere reproduction of an eternally real leaves no room for freedom and personality. But whatever ground for alarm may have been given by incautious phrases, it ought by this time to be clear that this cannot have been the meaning of the idealist writers who may have used them. On a theory founded on the denial of the reality of time, whatever else it is, the relation of the Absolute to the finite cannot be

¹ P. 376.

that of an "already" to a "not yet" experienced. If it be urged that it is just this alleged unreality of time that is the gist of the objection, the reply again is that what is denied is not the reality of time but the possibility of setting time up as itself an Absolute and of making the value of the soul's life to consist in its realising something that is new instead of something that is more adequate to its nature, and therefore more able to satisfy—a not-yet instead of an eternal. What the relation of such a fulfilment to personality as we know it is, is, indeed, a great question. But there are two ways of going about the answer. We may fix ourselves in the notion of personality as consisting essentially in that which is independent of external determination, or we may conceive of it as the condition of determination by the truth and of realising forms of experience, in which it finds its freedom in a higher form of dependence. I believe that the latter is the true meaning of personality, and I have tried to show that this is already implied in moral consciousness.

Had the question been of the justification of religious consciousness, this would, I believe, have been still more obvious. It is no part of my object to try to prove this here. But I venture, in conclusion, to offer as a test of the validity of the opposing conception a passage taken from a writer which will probably be admitted to represent some of the deepest religious experience of the race.

Scripture [writes St. Bernard] says that God made all things for His own sake. This will come to pass when the creation is in full accord with its Author. Therefore we must sometimes pass into that state wherein we do not wish to be ourselves or anything else except for His Sake and by reason of His will not ours. Then not our need or happiness but His Will will be fulfilled in us. As a drop of water is diffused in a jar of wine taking its taste and colour and as molten iron becomes like to fire and casts off its form, and as the air transfused with sunlight is transformed into that same lightness of light so that it seems not illumined but itself the light, thus in the saints every human affection must in ineffable mode be liquefied of itself and transfused into the will of God. How could God be all if in man anything of man remained. A certain substance will remain, but in another form, another glory, another power.

This is not philosophy but a highly imaginative devotional assurance. It may also be all wrong. But if, as I believe, it is a veritable phase of human consciousness, it clearly points to a different metaphysic from that of a philosophy which seeks to found a theory of all experience on determination by self-given ends as the ultimate fact of the universe.

To have raised uneffective protest against modern Parmenideanism whether naturalistic or idealistic in the interest of self-hood and process is a good thing, and this we owe in great part to Prof. Ward. But if the position is going to be held, it can only be by showing that both the self and the movement in which it finds its life take their value from something which, whatever else it is, is not a movement or a process of time.

II.—RECENT CRITICISM OF KANT'S THEORY OF KNOWLEDGE.

BY G. DAWES HICKS.

Kant's Theory of Knowledge. By H. A. PRICHARD, Fellow of Trinity College, Oxford. Oxford: Clarendon Press, 1909. Pp. vi, 324.

Lectures on the Philosophy of Kant, and Other Philosophical Lectures and Essays. By the late HENRY SIDGWICK, Knightbridge Professor of Moral Philosophy in the University of Cambridge. London: Macmillan & Co., 1905. Pp. x, 475.

PERHAPS it may be attributable to the greatness of Kant that, whilst most of us have our own quarrel with the transcendental theory, we are seldom satisfied with the criticisms of others, and feel inclined, as against the latter, to enlist in the service of Kant's defence. Unfortunately English works on the Kantian philosophy have most of them been written from a more or less antagonistic point of view. The one marked exception is furnished by the several expositions of Adamson. Not that Adamson would ever have called his own position Kantian. But he possessed a remarkable facility of placing himself within the circle of ideas of a philosophical system and of inspecting that system from the inside. In respect to few thinkers is this so necessary as in respect to Kant. By a combination of circumstances, the fundamental lines of Kant's reflexion tend to be lost from sight, and even the most conscientious of interpreters is constantly running the danger of not seeing the wood for the trees.

The two books named above¹ have each of them a strongly marked polemical character. Both are written from the point of view of a realism framed to a large extent on the model furnished by "the philosophy of common-sense". Both

¹ The writer of the present review deeply regrets the delay, for which he alone is responsible, in the appearance of a notice of these books in the pages of MIND.

agree in maintaining, as against Kant, what he would have called the "transcendental reality" of space, time and material entities. Both agree in finding the Kantian theory of knowledge to issue in subjective idealism. Prof. Sidgwick's Lectures are throughout interesting and on many points suggestive. But one has the feeling that his want of sympathy with his author prevents him from coming into contact with the deeper side of the Kantian speculation; he seems to be perpetually skirmishing round the outworks, and to bring up his heaviest artillery to overthrow them. Mr. Prichard confines himself entirely to the *Ästhetik* and the *Analytic*, and scarcely refers to the later portions of the *Kritik* even for the purpose of elucidating the earlier. These he submits to a running fire of attack, with the object of showing Kant to be wrong upon nearly every problem with which he dealt. I do not think, therefore, that either writer does anything like justice to the many-sidedness of Kant's work or to the real significance of his philosophy. At the same time, Sidgwick's Lectures were well worth preserving, and, under Dr. James Ward's careful editorship, they have a distinct value as indicating more clearly Sidgwick's attitude towards certain metaphysical questions than is indicated in his other books. And in like manner Mr. Prichard's volume presents in an acute and a lucid manner the main outlines of a view of knowledge which has recently been finding favour in Oxford, and which one is glad to have worked out so skilfully in print. I confine myself here, however, to the representation that is offered in each volume of Kantian doctrine, and must be content to refer to some of the more fundamental points alone.

Kant himself, as Mr. Prichard rightly remarks (p. 30), rarely ventures to touch the problem necessarily raised by his initial supposition as to the way in which experience is given to us. He has little or nothing to say with respect to what precisely is to be understood by such a phrase as "operation on the mind". There clings undoubtedly to his mode of exposition the conception of the mind as being mechanically affected by a real agent, of the results of such affection being the empirical elements of experience, and of the marks of universality and necessity as furnishing a sufficiently distinct criterion of that which in the complex content of knowledge is due to the mind itself. And doubtless it is this conception of a mechanical relation between real stimuli and the mind which lies at the root of the subjective character which Kant was inclined to assign to knowledge as a whole. The material constituents of knowledge, the

specific or particular elements of the apprehended content are, he seems to say, supplied from without, and this circumstance gives rise to a permanent obstacle between the mind and the assumed outer sources of its material filling. Accordingly, knowledge inevitably comes to be looked upon as a *construction* on the part of the mind itself and as lying within the limits of the mind or subject. This tendency may be said to furnish the chief count of Mr. Prichard's indictment of the Kantian theory. "Knowledge," he insists, "is essentially discovery, or the finding of what already is. If a reality could only be or come to be in virtue of some activity or process on the part of the mind, that activity or process would not be 'knowing,' but 'making' or 'creating,' and to make and to know must in the end be admitted to be mutually exclusive" (p. 118). Knowing in virtue of its very nature presupposes that the thing known is already made, or, to speak more accurately, already exists. "Even if the reality known happens to be something which we make, *e.g.* a house, the knowing it is distinct from the making it, and, so far from being identical with the making, presupposes that the reality in question is already made. Music and poetry are, no doubt, realities which in some sense are 'made' or 'composed,' but the apprehension of them is distinct from and presupposes the process by which they are composed" (pp. 235-236).

The point thus pressed seems to me unquestionably important, and to be also, in respect to certain trends of reflexion pursued by Kant, relevant. But I should urge that Mr. Prichard lays the blame for the confusion he condemns upon the wrong things, and that he himself, in the revision which he proposes of Kantian doctrine, falls into the very error which he deprecates.

It is, I understand, the view of knowledge as essentially synthesis which, in Mr. Prichard's judgment, is responsible for the confusion just referred to. "The process of synthesis by which the manifold is said to become related to an object is," he insists, "a process not of knowledge but of construction in the literal sense, and it leaves knowledge of the thing constructed still to be effected" (p. 238). Everything, however, depends upon the way in which the Kantian notion of synthesis is interpreted. In the somewhat laboured account he gives of the process of synthesis, Kant wishes, I take it, to guard against two possible misunderstandings. He wishes to guard against what one may perhaps call a mechanical view of synthesis on the one hand, and a merely psychological view of it on the other. The synthesis he has in mind is not, he indicates, merely a coming together of

parts, but a unity in which the parts are contained as parts. The various elements of the manifold are not to be considered to be themselves distinct objects each having, so to speak, an existence of its own,—objects which, when put together, constitute no more than an aggregate. Pure synthesis, taken in its generality is, as he puts it, equivalent to the pure notion of the understanding. Equally pronounced is his rejection of a merely psychological interpretation. If there be synthesis, the reduction to unity of multiplicity, there must certainly be involved, so one may represent him as arguing, a process of imagination,—the act of perceiving, that is to say, must be an act in which the content apprehended does really go beyond what is momentarily furnished in intuition. But this association, this psychological conjunction of parts, although no doubt involved in synthesis, is not itself synthesis, or the unity implied in knowledge. And Kant takes considerable pains to show that imagination can only work in so far as the supplement which it makes to the directly given elements of sense is determined according to the principles of the unity of consciousness. The psychical mechanism required for effecting the synthesis is one thing, the synthesis itself is quite another; and Kant's argument loses all its force if it be supposed that by any composition of parts not in themselves involving the unity of knowledge there can accrue to the whole which is assumed to result that unity which is the characteristic mark of knowledge. In asserting that the function of the understanding is "to bring the synthesis to notions," what Kant is really saying is that synthesis or combination *is* itself the very act of knowing, that notions *are* the ways in which a conscious subject is aware of unity in the act of combining a manifold. Mr. Prichard, however, takes Kant to mean by synthesis something very different. "When Kant speaks," he writes, "of synthesis, the kind of synthesis of which he is usually thinking is that of spatial elements into a spatial whole; and, although he refers to other kinds, *e.g.* of units into numbers, and of events into a temporal series, nevertheless it is the thought of spatial synthesis which guides his view. Now we must in the end admit that the spatial synthesis of which he is thinking is really the *construction* or *making* of spatial objects in the literal sense. It would be rightly illustrated by making figures out of matches or spelicans, or by drawing a circle with compasses, or by building a house out of bricks" (p. 233). This interpretation is not supported by any definite references, and I am at a loss to understand on what grounds it can be based. A synthesis which consists

in determining the contents of sense intuition in accordance with the conditions of the unity of self-consciousness seems to be oddly described as a synthesis of "spatial elements into a spatial whole". Nothing that I can find in the "Deduction" justifies that description. On the other hand, it is true that in the "Deduction" of the first edition there is a lapsing into a psychological mode of treatment. Sensibility, with its synopsis, imagination, with its schemata, understanding, with its categories or pure forms,—these are there dealt with as though they composed the psychical mechanism with which each human mind was provided. Yet Kant has himself supplied, more expressly no doubt in the "Deduction" of the second edition, but also in that of the first, abundance of material for correcting any misapprehension to which the mode of treatment in question might, if it stood alone, give rise. And, after all, as a piece of psychological analysis, this particular portion of Kant's work has its value. What is said, for example, about imagination as "eine blinde, obgleich unentbehrliche, Function der Seele," refers to a very real factor in the development of the individual consciousness, which Lotze also had occasion to emphasise in his own way in his discussion of the logical judgment.

Quoting the opening passage of the *Analytic*, Mr. Prichard pronounces, curiously enough, the Kantian way of distinguishing between sensibility and understanding to be "straight-forward and, on the whole, sound" (p. 28). I believe, on the contrary, that, under the influence of his opposition to Leibniz, Kant was here committing himself to the fatal step which led him into the pitfall of which Mr. Prichard makes so much. Even on purely psychological grounds it is impossible to retain the hard and fast distinction between sensibility and understanding in any fashion that will be helpful for explaining the development of cognition, and when regarded as absolute, as a difference of kind, it is a distinction flagrantly at variance with Kant's own view of the nature of understanding. The consideration which, however, I would press in the present connexion is the following. To separate the shares contributed to knowledge by sense and understanding respectively, whether the contributions be looked upon as due to the operation of these so-called powers or in whatsoever other way they may be accounted for, is inevitably to give rise to the conception that what is contributed is a product, a real fact or occurrence, and that the resulting combination is in some way a compound in which these two detached elements come together. Moreover, to describe thought as an instrument, as that whereby the material of experience is

worked up into the form of knowledge, implies at once that the resultant, the content known, occupies the position of a *tertium quid* between the cognising mind and the world of reality. Now this is, as I have said, the reiterated complaint Mr. Prichard has to bring against the Kantian doctrine. Kant, he maintains, in virtue of his theory of perception, "interposes a *tertium quid* between the reality perceived and the percipient, in the shape of an 'appearance'" (p. 137). "In stating the fact of perception he substitutes for the assertion that things appear so and so the assertion that things produce appearances in us" (p. 73), and, at the same time, is unaware of the transition, or, at any rate, fails to distinguish the two expressions (p. 74). As against certain tendencies of Kant's thinking, the complaint is, I conceive, quite just. But that these tendencies are to be traced to the source I have indicated is confirmed by the strange fact that Mr. Prichard is himself landed in a predicament similar to that which he so lucidly exhibits in the Kantian writings. After the strenuous way in which it is insisted that knowledge of an existing reality presupposes that the reality known exists independently of the knowledge of it (p. 118), and that we are not entitled to treat the knowledge of a fact as though it were itself the fact to be known (p. 126), one is perplexed to find a rigid distinction instituted between primary and secondary qualities, and a refusal to recognise the latter as real qualities of things (pp. 85-88). After being told that "it is really an abuse of the term 'appearance' to speak of appearances *produced by* things, for this phrase implies a false severance of the appearance from the things which appear" (p. 86), one is baffled by the discovery that after all things do "produce certain sensations in us," and that the secondary qualities, in contrast to the primary, are relative to perception and do presuppose a percipient. Mr. Prichard, it is true, disputes the propriety of calling "sounds, smells, tastes and sensations of touch" appearances, although, I confess, I have failed to understand his reason for doing so. But, appearances or not, they are certainly apprehended contents, and as such constitute no inconsiderable part of the world of experience. He admits, however, that colour does "seem to be a real quality of bodies," despite the fact, as he takes it to be, that it is not (p. 87). According to his own argument, the *white colour* of the sheet of paper before me, since it is dependent upon the mind and would disappear with the disappearance of the mind, is a reality of the kind called *mental* (p. 121). How, then, one is surely constrained to ask, can it be maintained that there is no *tertium quid* in the form

of a 'representation' between me, the percipient, and the sheet of paper I perceive (p. 133)? Sensuous elements are, *ex hypothesi*, involved in all apprehension of bodies (p. 91, note); they enter, that is to say, into the structure of every object as perceived. How, then, can they fail to intervene between the percipient and the real object, and prevent the latter from being apprehended as it is in itself?

I turn to another consideration. What, let me ask, is the main principle the establishment of which is the aim of Kant's "Deduction of the Categories"? Expressed quite generally, it might, I take it, be said to be this. Whatsoever we venture to lay down as constituting part of the world of experience must be capable of being construed in terms of mind or intelligence. Kant, it is true, tends constantly to interpret this theorem as though it signified that the experience of the finite subject consisted of *Vorstellungen*, or (as we will say for the moment) states of mind. And on the supposition that such is veritably his meaning, there is no difficulty in showing that the critical theory is landed in a hopeless position before the problem of knowledge. "It seems to him," says Sidgwick, "absurd that the 'thing-in-itself' should wander into my consciousness; yet, so far as I can see, neither he nor his English expositors find any difficulty in conceiving the phenomenal thing to wander out of it. Both he and they seem to hold that I can know objects to be merely modifications of my sensibility, combined in certain ways by my understanding; while at the same time I also conceive them as different from the modifications of my sensibility and as perduring when the latter cease" (p. 73). And similarly Mr Prichard lays stress upon the inconsistency which culminates in the very same *Vorstellungen* being spoken of as "having both a subjective and an objective relation, i.e. as being both modifications of the mind and parts of nature" (p. 233), and, in an earlier chapter contends that "an 'appearance,' being necessarily something mental, cannot possibly be said to be extended" (p. 76). I have no desire to minimise the glaring contradictions that here come to the surface. If *Vorstellungen* be treated as on the one hand the matter known and as on the other hand states or modifications of the empirical self, there is no escaping the crudest form of subjective idealism. And I do not deny that in language at least Kant often does come dangerously near to that *impasse*. But the main trend of thought in the *Analytic* supplies ample warrant for hesitation in supposing this to be Kant's actual meaning. When, for example, it is laid down that all so-called facts of experience must be

interpreted in accordance with the forms of apperception, and that apperception, or the transcendental unity of self-consciousness, must be distinguished from the empirical existence of the finite subject, the latter being included among the facts of experience, the inference surely is irresistible that if phenomena are *Vorstellungen*, they are not *Vorstellungen* in the sense of being processes of mind, parts of the complex whole we designate the finite mind. One cannot, of course, definitely prove that Kant was not blind to so very obvious a consideration, but the supposition that he was is, to say the least, highly improbable. It becomes simply incredible when we follow his treatment of certain specific problems in the course of the *Analytic*. What are we then to make, for instance, of the elaborate argumentation in the discussion of the second Analogy on which is rested the distinction between objective sequence, sequence in the object, and the merely contingent way in which we may put together what is offered in intuition? Mr. Prichard, as might be expected, can see in all this nothing but a mass of confusion. Kant, he thinks, "is committed to a philosophical vocabulary which makes it meaningless to speak of relations of objects at all in distinction from relations of apprehensions" (p. 282). But I venture to urge that, considering the extraordinary diversity of usage that has marked the history of such a term as *Vorstellung*, a drastic judgment of this sort is altogether arbitrary. Kant need not always have intended by *Vorstellung* a *psychischer Vorgang*; he might very well have also employed the term, as Berkeley employed the term "idea," to signify the content known, and, unless we are going to credit him with the most palpable nonsense, we are bound frequently to understand him as using the expression in this sense. To take but one illustration. When in working out the import of the second Analogy Kant sharply distinguishes between *Vorstellung* and its given object or *Erscheinung*, and then immediately adds that after all the latter is nothing but a whole of *Vorstellungen*, is it not manifest that he is here availing himself of the ambiguous significance of the word? And if so much be allowed, Kant was by no means compelled to subscribe to the assertion, which apparently Mr. Prichard holds to be self-evident (p. 121), that the dependence of a reality upon mind, or its being in its own nature "of such a kind as to disappear with the disappearance of the mind" is equivalent to its being "of the kind called mental".

Kant, it is true, was surprisingly ready to rest satisfied that he had disposed of the idealistic argument by pointing to the

ultimate and irreducible difference, as he believed it to be, of outer and inner sense. Since the space-qualified contents of outer sense were no less directly and immediately apprehended than the non-spatial contents of inner sense, since both were equally parts of experience, the transition from inner to outer, which had been impugned from the side of idealism as a merely problematical inference, required in truth not to be made at all. The reality of outer experience was just as certain and unquestionable as that of inner experience. But it ought to have been obvious from the beginning that neither Berkeley's idealism nor any other can be refuted by emphasising a characteristic like space-extendedness which is possessed by the contents of dreams and illusions as unmistakably as it is possessed by the contents of actual sense-perception. In more than one place, however—in the preface to the second edition of the *Kritik*, for example—Kant recognises that the question to be faced concerns the relation in which the contents of external perception stand to real existing things in space. His contention then is that from the mere flow of presentations, it would be impossible for me to determine my own existence in time, and that even the circumstance that space-extendedness characterises certain contents of those presentations would not supply the additional factor needed for such determination. The consciousness either of my own or of any existence in time implies in its very nature, as going beyond the presented contents, that which is distinct from the presented contents, and it cannot be accounted for by any characteristic or quality of the presented contents themselves. It involves, so it is maintained, the *existence* of permanent outer things as distinct from the *Vorstellungen* of outer things. "I am just as certainly conscious of the existence of things external to me, which are related to my sensibility, as I am conscious that I myself exist, as determined in time." For the rest, Kant seems to say, the existence of such external things can in no way be represented in terms other than those of experience; and, from the *Metaphysische Anfangsgründe der Naturwissenschaft*, which appeared the year before the second edition of the *Kritik*, it becomes tolerably clear that the external existent thing, as here conceived, is by him identified with the movable in space which affects our organs of sense. The reference, in other words, is not to an unknown thing-in-itself, which, as unknown, would not serve as the condition for the consciousness of our own existence in time, but to empirical things in space.

Sidgwick is very decidedly of opinion that by "objects" Kant must not be taken to mean "things in themselves".

"'Object' in the sense in which it is used in the *Analytic*—especially if used in connexion with 'objective'—is always 'object of possible experience'" (p. 69). I confess I should not have thought that this admitted of doubt. But Mr. Prichard will not have it so. According to his view, up to the passage in the *Analytic* of the first edition dealing with "the Synthesis of Recognition in Conception," Kant's doctrine was that the object corresponding to and producing unity in our *Vorstellungen* is the thing-in-itself, then, at this stage, a second object, viz. the phenomenal object, is introduced, and henceforward it is this phenomenal object which is prominent in the first edition and has exclusive attention in the second (pp. 183-185). Such a mode of exegesis creates far more and greater difficulties than it solves. That Kant should suddenly introduce into the first edition a momentous change of the kind indicated, a change which would imply a complete transformation of his entire theory, and have left the passages where the old view was in evidence untouched, that he should have deliberately re-written the sections of the "Deduction" for the second edition, and yet have allowed preceding sections, in which the discarded doctrine is to be met with, to remain as they were,—all this is so extremely improbable that one requires the most convincing proof before accepting it as fact. So far as I can discover, Mr. Prichard offers no proof at all; he proceeds simply to interpret the text along these lines. And naturally he is led to convict Kant of gross inconsistencies (e.g. of speaking of elements being related to an object as though it were a known object when in truth it is the unknowable thing-in-itself),—inconsistencies which were the term "object" taken to mean what admittedly it does mean a few pages further on and subsequently could not be laid to his charge. How any one can read through the earlier parts of the *Kritik*, and, in face of reiterated assertions to the effect that "alle Gegenstände blosser Erscheinungen sind," still be satisfied that when Kant is speaking of "objects" he does not mean "phenomenal objects," passes my comprehension.

In contending that, according to Kant, the thing-in-itself is the correlate to the unity of consciousness (p. 183), Mr. Prichard can claim the support of many expositors. Undoubtedly the term "transcendental object" is often used as a synonym for "thing-in-itself" or "noumenon". But it is not always so. Not to mention the strongly emphasised position that the notion of noumenon is not the notion of an object, Kant expressly asserts in one place at least that the altogether indeterminate thought of something in general

cannot be called noumenon. And in the passages of the first "Deduction" where mention is made of the "transcendental object," he does not, I think, intend that phrase to denote "thing-in-itself". It is with the *notion* of the transcendental object that he is there concerned. And he is contemplating that notion, it seems to me, as in the first instance, a factor in the fundamental act of knowing,—the act, namely, whereby there comes forward in the life of consciousness the unique antithesis between subject knowing and object known, the former not as yet being regarded as the concrete individual, the antithesis being merely the form of knowledge in general. No doubt later on the notion of the transcendental object is regarded by Kant as a factor, or *the* factor, in knowledge on which may be rested the reference he thinks is involved in the phenomenal world of experience to a reality other than the phenomenal. But that is very far from identifying the notion in question with the notion of a noumenal reality. So much so, that Kant expressly repudiates the idea that the transcendental object can in any way be abstracted from the sense data in conjunction with which it is apprehended, for on the removal of these nothing, he says, would remain whereby it could be conceived. The transcendental object, he adds, is only the presentation of phenomena (*die Vorstellung der Erscheinungen*) under the notion of an object in general, which can be determined, or definitely known, through the manifold of these phenomena. I do not see, therefore, that Kant is, in this connexion, departing from his central position that recognition of anything as an object is only another mode of describing recognition of the definite law or rule according to which the manifold of sense is combined, or that by "object" ought to be meant that element in the perceived content which constitutes the necessary and universal aspect as opposed to the merely empirical details of sense intuition.

The most disappointing chapter in Mr. Prichard's book appears to me to be that in which he treats of the Kantian doctrine of space. Kant, he contends, in dealing with space as a form of perception frequently speaks of this form of perception as though it were the same thing as the actual perception of empty space (p. 37). In consequence, the assertion that space is a form of phenomena is confused with the assertion that space is a form of perception (p. 39). And thus the conclusion comes to be drawn that our apprehension of space is *a priori*, because we apprehend empty space *before* we become aware of the spatial relations of individual objects in it (p. 42). To some extent, this way of interpreting

Kant's position coincides with that offered by Sidgwick. Sidgwick, indeed, admits, apparently, that *a priori* ought to be understood as logical, and not as chronological, priority, but he insists that this proviso is "irrelevant to the question whether space really belongs to the object perceived, independently; or is only a form under which the human mind is by its constitution compelled to perceive it" (pp. 41-42). That may well be; but it certainly is relevant to the question whether the perception of empty space precedes the perception of actual objects. None of the passages to which Mr. Prichard appeals seem to me to justify the allegation that Kant falls away from the confessedly critical meaning of the term *a priori*. He maintains no doubt that the *a priori* form of space is precedent to the perception of objects,—precedent to the perception of them as related to one another in space. But that does not involve that space, as an idea or percept, is present to the mind previous to sense apprehension, or that it possesses what may be called innateness of nature. Nothing can be more explicit than Kant's repeated declarations that our knowledge of space is acquired, and is not innate. He speaks, it is true, of space as a "pure perception," but, having regard to his own definition of "pure," that does not mean that space is originally an object of perception, but rather that the space element of what is perceived has nothing in it of an empirical character. He neither says nor implies that space *merely as a form* can be perceived.¹ On the contrary, he emphatically asserts that "space and time never can be perceived by themselves"; whilst, in a familiar footnote (of the second edition of the *Kritik*), he explains that space, when presented as an object, contains more than the mere form of intuition, combination, namely, of the manifold,—a combination dependent upon the synthetic activity of the understanding,—and that he had not meant in the *Æsthetic* to say anything in violation of this view. Space, as a form, is, in other words, merely a *condition of the possibility* of perception; it renders the synthesis of perception possible, whilst the work of the understanding is needed to render such synthesis real. Quite legitimately, of course, the question may be raised whether space by itself can be *conceived* at all. Kant believed it could be; but then it was what he termed a "notional entity," an object of thought, not an object of perception. Mr. Prichard further argues that Kant was wrong in distinguishing the way in which we apprehend

¹ Kant, of course, ought not to have spoken of the forms of perception as perceptions any more than he ought to have spoken of the categories as notions. But, after all, the resources of language are limited.

the nature of space as a whole from the way in which we apprehended the general characteristics of objects. "Thus, in the case of colour, we can distinguish colour in general and the individual colours of individual objects; or, to take a less ambiguous instance, we can distinguish a particular shade of redness and its individual instances" (p. 44). I have urged already that the generic distinction which Kant instituted between perception and conception was a mistake. If, as cannot be doubted, even the simplest axioms relating to space and its relations are of the nature of judgments, we certainly cannot explain such axioms by referring them to a source conceived as opposed to and devoid of the essential nature of judgment. But, on the other hand, Kant was surely right in pointing out the important difference between space as actually experienced and the contents of notions which are obtained by the exercise of the *discursive* processes of thinking. The relation of the one space to individual spaces he was surely right in regarding as a relation very different from that of colour in general to an individual colour, even though Mr. Prichard's dictum be conceded that to assert there is only one space "simply means that all individual bodies in space are related spatially" (p. 47). Whatsoever our theory of the precise nature of space, of this I should have thought we might be perfectly satisfied,—that as a fact of experience it is not a concept derived by generalisation from particular objects.

I have been compelled to leave untouched those portions of the two books under consideration where lines of thought are followed with which I am more or less in agreement. In Mr. Prichard's chapter on "The Schematism of the Categories," for example, there seems to me to be contained much admirable criticism, and I should say the same of that on "Time and Inner Sense". With his main contention, too, as to the relation between appearance and reality I am in accord. Only I think the latter commits him logically to a far more radical revision of the Kantian theory than he apparently would sanction. The idea of experience as the result of the action of the real upon the consciousness,—an idea which Kant in various ways struggles to avoid, but from which his theory cannot be wholly freed,—strikes, I should be prepared to maintain, at the root of all intelligible explanation of knowledge. For it means that a quasi-existent mode of being is assigned to the phenomenal world, no less puzzling than the mode of existence assigned by Plato to sense particulars. Knowing is a subjective process, unquestionably; but this, in itself, in no way condemns it to play for ever with entities of its own fabrication.

III.—THE PESSIMISM OF CREATIVE EVOLUTION.

BY J. W. SCOTT.

THE impression made by Bergson's *Creative Evolution* is not really a matter for surprise. Apart altogether from his style, his message itself is one which could hardly fail to fascinate in the present state of culture. *Creative Evolution* is virtually an examination of the power of natural science to give an ultimate account of things. The best background, therefore, to the view of reality which it suggests, is the view of natural science; or, more accurately, the view which an intelligent thinker would naturally draw from the facts which natural science reveals. And between the two views the difference is striking. The "scientific" position—to confine ourselves here to a bare outline of what is only vaguely present to the average educated mind—is pessimistic. The stuff of the universe is matter. Its life is energy. All that we call movement is due to this energy. Nay, all change—the entire restlessness of things—is nothing else than the ceaseless down-rushing of energy out of its reserves; its escape out of a state in which it is pent up at certain points, into a state in which it will be spread out evenly all over matter and be still—like water which has reached its own level. Human civilisation is simply a small part of this universal movement. To speak metaphorically, it is placed on this stream, and driven by it, like an under-shot mill wheel. Now, the stream is certainly very vast, but it is getting lower. And long before it has exhausted itself it will have gone low enough to leave the wheel high and dry. To put it more concretely: the energy on which we are dependent comes from the sun. Of that energy there is only available for our industries so much as has been caught in antediluvian forests and stored in coal. We are therefore working on our capital. And we should still be working on our capital even if we could somehow tap a new source of energy, and thus—to return to our metaphor—lower the wheel, and "place civilisation upon the broad flowing river of energy" once again. We might thus put off the day of reckoning,—perhaps put it very far off;

but we should not change it. If, for instance, we learnt to use the tides we might, so to speak, immensely lengthen our lease of life; but the end would still be the same. What else could it ultimately mean, except simply that we were utilising the brake upon the earth—the brake which is slowing down its rotatory motion, and thus, gradually but inevitably, bringing us nearer the day when its tides will rise no more. The same is ultimately true of whatever new source of energy is awaiting our ingenuity to release. We can still only release it. However vast the stores on which we draw, we can never put a foot-pound of it back again, once it has flown out. The conclusion seems inexorably simple. The universe is running down like a clock. It may take long enough to do it. But that is what is going on.

Particular scientific thinkers may have various ways of softening this result. But this is the result which the average man, looking straight at the scientific story, will be apt to say that it comes to. Hence the inherent interest of the question which Bergson raises, Is science competent to yield a philosophy at all? Does it, *quâ* science, ever truly see the reality with which it seeks to deal? Bergson answers this question in the negative. And if, coming straight to the point, you ask what it is, exactly, that science misses; the answer is, the real character of movement. Reality is a continual process of change; and the change is, what science never grasps, a "becoming". If we ask further why science misses it, we shall find the reason in this—that the nature of "becoming" is incompatible with the instrument which science uses in order to deal with it, namely, the intellect. Get behind the artificial picture which intellect makes, get into contact with movement itself, directly, intuitively. You will find that movement is evolution; moreover evolution is in no sense a running down; it is real progress; that is to say, it is a process in which more is for ever coming to be than was before.

The thesis of *Creative Evolution*, then, is that Reality is *not* exhausting itself. Its very essence is to be a perpetual building of itself up into a richer and more varied assemblage of states and conditions. The title of the book, therefore, might have been "Reality as Self-creative," or simply, "Being Becoming". As such, it stands in fascinating contrast to the sombre view which we have cited, and which in one form or another has acted like a prepared background in the mind of the enlightened culture which awaited Bergson's work.

There is an objection to his general view, suggested by Bergson himself in the fourth chapter of *Creative Evolution*,

an objection which he acknowledges to be serious, and one with which he must grapple closely. It is his treatment of this objection that chiefly concerns us in this paper. We wish to examine his answer to it; because in his answer he seems to expose an aspect of his theory which is pessimistic.

The objection itself can be stated, without essential misrepresentation, in an almost crudely simple way. It is said that new being is for ever coming to be. Where does it come from? How or whence does the universe get its new stuff? For it is claimed that what comes to be is new. It was not there before. To say that it existed "potentially" would be to endorse one of the errors of the intellect—the theory known as Finalism. In the process of evolution, there is no stage at which you could say, of the matter there to hand, that it contained an anticipation or an outline plan of the end towards which the whole was advancing. Nature does not aim at ends. It only "takes directions". It is not "a plan in course of realisation". It is more and better than that. It creates. It brings forth what absolutely was not before. Which means that something comes forth from nothing. Being arises and "suppresses" nothing. Which looks like sheer, crude miracle.

Bergson's reply is virtually an admission of the paradox. It is even by such miracle that the universe is actually and perpetually sustained. His defence of this consists in a criticism of the opposite position, *viz.*, that perpetual creation is absurd. He tries to bring into light the assumption which underlies this position. Of course, this is not his only defence. He does turn attention to other possible points of view in the earlier chapters of the book. But this negative line of defence, as will be shown later, is the fundamental one.

The objector, then, cannot understand how that can come to be which genuinely never had being. "First nothing and then something," he says, is impossible. It is impossible, replies Bergson in effect, if we are to believe that "nothing" either is or ever was. But this is not true. "Nothing" is but a pseudo-idea, a mere fabrication of the intellect, which we should not allow to hinder our accepting any hypothesis which is otherwise credible and necessary.

It is true that in ordinary life we are apt to assume the reality of negation or "nothing". Indeed, the philosophic impulse springs very often from little else. When the speculative mind first looks round itself "in wonder and in fear" to ask itself that unanswerable question, "Who am I? What is this *me*?" the notion of "nothing" has a great deal to do with it. We feel *its* right to existence. The sense of

the question is: "Why should I be, rather than nothing? Why should the universe, why should anything at all be, rather than simply nothing?" We assume that "nothingness" might have been, and that it would not have needed explanation. But our habit of assuming the reality of "nothing" comes out most clearly when we are dealing with the affairs of practical life. There the reality of want is always assumed, and that is a way of treating "nothing" as real. "It is unquestionable . . . that every human action has its starting-point in a feeling of dissatisfaction and therefore of absence. . . . Our life is spent in filling voids which our intellect conceives under the influence of desire and regret; and if we mean by void an absence of utility and not an absence of things, we may say, in this quite relative sense, that we are constantly going from the void to the full; such is the direction which our action takes. Our speculation cannot help doing the same; and, naturally, it passes from the relative sense to the absolute sense, since it is exercised on things themselves, and not on the utility they have for us. Thus is implanted in us the idea that reality fills a void, and that Nothing, conceived as an absence of everything, pre-exists before all things, in right if not in fact."¹

But this speculative "nothing" is a pure illusion. When we speak of the "nothing" which might have been, had the real not been, we utter a form of words, but we do not think at all. What could such "nothing" be? or how could it be apprehended? Try as we will we cannot image "nothing". "I am going to close my eyes, stop my ears, extinguish one by one the sensations that come to me from the outer world. Now it is done; all my perceptions vanish, the material universe sinks into silence and the night. I subsist, however. . . . I am still there . . . and with the impression, most vivid and full, of the void I have made about me." And to be conscious of this is by no means to be conscious of nothing. Even if I try to annihilate every element of consciousness and think the self which was conscious, as dead,—still, it is *I* who think all this. "Be it external or internal, some object there always is that my imagination is representing."² And no more, try as we will, can we *conceive* nothing. Such a conception were as absurd as a square circle. When I annihilate an external thing, in thought, when I think it as "being no more," I am not thinking an absolute void. I am thinking another sort of thing. In short, "a being unendowed with memory or prevision would not use the words

¹ *Creative Evolution*, pp. 313-314.

² *Ibid.*, pp. 293-294.

'void' or 'nought'; he would express only what is and what is perceived; now what is and is perceived is the *presence* of one thing or another, never the *absence* of anything. There is absence only for a being capable of remembering and expecting. He remembered an object and perhaps expected to encounter it again; he finds another, and he expresses the disappointment of his expectation . . . by saying that he no longer finds anything, that he encounters 'nothing'. . . . What he perceives in reality, what he will succeed in effectively thinking of, is the presence of the old object in a new place, or that of a new object in the old place; the rest, all that is expressed negatively by such words as 'nought' or the 'void' is not so much thought as feeling, or, to speak more exactly, it is the tinge that feeling gives to thought. The idea of annihilation . . . is therefore formed here in the course of the substitution of one thing for another, wherever this substitution is thought of by a mind that would prefer to keep the old thing in place of the new." With the attempt to think of an internal state as annihilated it is the same. In a word "*the representation of the void is always a representation which is full, and which resolves itself, on analysis, into two positive elements: the idea, distinct or confused, of a substitution, and the feeling, experienced or imagined, of a desire or a regret*".¹

What is called negation, so far as it is thought at all, is affirmation—only, it is affirmation *about* something else than the object named in the proposition. When we say of a thing that it "is not," we think we are judging the thing. But we are mistaken. When I say "this table is black," I am affirming something of the table; but when I say "It is not white," I am not making a negative affirmation about *it*. If I perceive at all, I do not perceive an absent white, but a present black. But the chances are that I do not perceive at all. So far as this judgment is concerned, I am really turned away from the table. I am making a *positive* affirmation about something *else* which I apprehend, or might apprehend, namely, the judgment which should say "this table is white". I am positively affirming that judgment to be false. Which means that I am judging some person's possible judgment on the object. I am dealing not with things, but with my fellow-men and their attitudes to things. I am aiding or warning or correcting them, because I am interested in them. "Thus, whenever I deny, I perform two very definite acts: (1) I interest myself in what one of my fellow-men affirms, or in what he was going to say . . .

¹ *Creative Evolution*, p. 297. Italics the author's.

(2) I announce that some other affirmation, whose content I do not specify, will have to be substituted for the one I find before me. Now, in neither of these two acts is there anything but affirmation."¹ Denial, therefore, does not express reality. It has, from first to last, a practical, "sociological and pedagogical" character. I deny, because I am interested, not in things themselves, but in judgments upon them, and in persons making such judgments. "Suppress every intention of this kind, give knowledge back its exclusively scientific or philosophical character, suppose, in other words, that reality comes to inscribe itself on a mind that cares only for things and is not interested in persons: we shall affirm that such and such a thing is, we shall never affirm that a thing is not." "Suppose language fallen into disuse, society dissolved, every intellectual initiative, every faculty of self-reflection and self-judgment atrophied in man . . . the passive intelligence, mechanically keeping step with experience, neither anticipating nor following the course of the real, would have no wish to deny. It could not receive the imprint of a negation. For, here again, that which exists may come to be recorded, but the non-existence of the non-existing cannot. . . . To sum up, for a mind which should follow purely and simply the thread of experience, there would be no void, no nought, even relative or partial, no possible negation. Such a mind would see facts succeed facts, states succeed states, things succeed things. . . . It would live in the actual, and, if it were capable of judging, it would never affirm anything but the existence of the present."²

What, then, could be more absurd than to allow an imaginary "Nothing" to defeat the ends of a process of creative evolution? If "Nothing" were to be replaced by being only through a miracle, then, as we said, it is a miracle that is being performed every day. Only being ever is. "Nothing" needs no suppressing; because it is already perpetually and effectively suppressed.

II.

We may anticipate here the main point of this paper, so far as to say, that it is in this re-appearance of the Eleatic "non-being is not" in the midst of a Heracleitean gospel of change, that we find the pessimistic heart of that gospel. For, to put it bluntly, the "nothing" which is here ignored, is the stock-

¹ *Creative Evolution*, p. 305.

² *Ibid.*, pp. 307-310.

in-trade of intelligence; and of all our mental faculties so far as they are intelligent. Let us consider for a moment the character of intelligence and Bergson's representation of it.

The intellect, on Bergson's view, is an instrument of practice; and it is in the service of practical ends that it acquires its habit—speculatively fatal—of substantiating “nothing”. How is this taint contracted? To make use of one of Bergson's own examples, think of the intellectual process involved in the very simple practical task of raising the arm. This movement involves innumerable contractions and adaptations of nerve and muscle. We do not deliberately set ourselves to perform all these adaptations in due order. If we did we could never get along. The mind ignores them—glides over them, so to speak, and fixes its attention on the peg or the shelf we wish to reach. What the mind thinks of, when it performs a practical movement, is the end—the point where action will be over and movement give place to rest. This is the habit of the practical consciousness everywhere. When it “intends” anything, what it prefigures is always the point of rest, the projected scheme as filled in and completed. It never really grasps the movement. Even when it prefigures the progress of the action, it only apprehends the motionless plan which the movement is to follow. It does not grasp movement as such. In living its life, therefore, the practical intelligence goes through a series of leaps. It goes from an end to a further end, from static scheme to static scheme; and holding firmly on to each of these in turn, lets the movement come, which is to fulfil it. It never so to speak gets inside the movement itself, and moves with it.

Now, one cannot write in water. The practical consciousness must draw the static diagrams of its action, but it could not draw them upon the background of a purely flowing reality. For practical purposes, therefore, the world must be made to present a static appearance. Yet, really, it is not static. When we perceive the outside world, we find colour succeed colour, sound succeed sound, resistance succeed resistance. Nor do we take each colour, each sound, to be anything else than a state which persists. “Yet each of these qualities resolves itself into an enormous number of elementary movements. . . . In the smallest discernible fraction of a second, in the almost instantaneous perception of a sensible quality, there may be trillions of oscillations which repeat themselves.” The real, then, is vibrating to the very core. It is the re-

verse of stable. And yet intelligence and perception succeed in giving to this flux the stability which practice requires. They do it by gathering a plurality of these moments into one; a larger or smaller number as the case may be. The vibrations thus "condensed" appear in perception as qualities. And, in all likelihood, this power of condensing a series of changes into an instant is not exclusively human. It only surpasses in its range an essentially similar power possessed by all the lower forms of life, each in its own degree. The essential point is that this function is always the handmaid of action. "The greater the power of action bestowed upon an animal species the more numerous, probably, are the elementary changes which its faculty of perceiving concentrates into one of its instants. And the progress must be continuous, from the beings that vibrate almost in unison with the oscillations of the ether, up to those which embrace trillions of these oscillations in the shortest of their simple perceptions. The first feel hardly anything but movements; the others perceive quality. The first are almost caught up in the running gear of things; the others react, and their faculty of acting is probably proportional to the concentration of their faculty of perceiving. The progress goes on, even in humanity itself. A man is so much the more a 'man of action' as he can embrace in a glance a greater number of events: he who perceives successive events one by one will allow himself to be led by them; he who grasps them as a whole will dominate them."¹

Intellect, then, makes the world stable for practice by concentrating or condensing the moments of its movement. What are these concentrations or condensations? Roughly, they are cross-sections—or rather, sections taken at an angle—in the flow of reality. Now it is the relation of these to that of which they are the sections that is important if we wish to see the pessimism in Bergson's representation of the mind of man. We contend that he really does the same thing with these cross-sections as he does with "nothing"—deprives them of anything but "pseudo" character, and therefore of all title to exist. And with that the intelligence-values of man's universe vanish away.

Laying aside all questions of practice, let us ask what these "cuts" are, for a true speculation; what they are in reality. Bergson speaks of the way in which intelligence regards them, as an error; an error "near akin" to the intellect's other error of taking "nothing" for a reality. The question is, are the two errors only "near akin"? Are they not

¹ *Creative Evolution*, pp. 317-318.

exactly the same error, and in need of the same correction? To call those "snapshot views" of the intellect "nothings," and straightway to drop them out of the universe, would certainly contradict what Bergson says about them on various occasions when he is summarising his views on the nature of intellect. He then accords to the cuts (as we have called them) a certain status. He regards them as having a place of some sort in the reality whose essence is movement. "We say there is *more* in a movement than the successive positions attributed [by the intellect] to the moving object, *more* in becoming than the forms passed through in turn, *more* in the evolution of form than the forms assumed one after another. Philosophy can therefore derive terms of the second kind from the first, but not the first from the second."¹ Plainly if we are to believe that there is more in movement *than* the positions attributed to the moving object, we must assume that the latter are there at least. But are they? To answer this question we must not depend on summary statements. We must go back to the analyses they rest on.

Reality is, for Bergson, movement, becoming, evolution. Let us look closely, then, at evolutionary change, where his analysis can perhaps be seen most clearly. We observe a growing thing—the form it has now. Later we see it in a new form. But we never see the movement between. We may, of course, detect the object assuming a form between its first shape and its full shape. We may be able to insert quite a number of these intermediate stages. But no one of these intermediate forms or shapes gives us the movement. Every one of them is still. What it represents is a cross-section, a snapshot view, of a movement which never halts. Any such view presents us with the movement artificially arrested. And however many of such "arrests" we take, or however rapidly we look at them one after the other, even if we unroll them with the rapidity of a cinematograph film, they are still not the movement. Now the mechanism of intellect and perception presents reality after this fashion. It "condenses" the continuous flow of the real into a series of halts which it perceives, one after another. It may be able to perceive these successive "forms" at coarser or at finer intervals. But however finely it detects differences, say, of position in a moving body or shades in a changing colour, it can only jump from one to the next, while the movement remains that over which it leaps—that which fills the intervals. "Let me, then, concentrate myself wholly on the transition, and between any two snapshots, endeavour to realise what

¹ *Creative Evolution*, pp. 333-334.

is going on. As I apply the same method [the intellectual method] I obtain the same results; a third view merely slips in between the two others. I may begin as often as I will, I may set views alongside views for ever, I shall obtain nothing else. The application of the cinematographical method, therefore, leads to a perpetual recommencement, during which the mind, never able to satisfy itself, and never finding where to rest, persuades itself, no doubt, that it imitates by its instability the very movement of the real. But though, by straining itself to the point of giddiness, it may end by giving itself the illusion of mobility, its operation has not advanced it a step, since it remains as far as ever from its goal."¹

What is this cross-section, then, which is all that the intellect ever gets of reality at any moment? Not only is it not the stream of movement which is reality, it is no part thereof. No number of such sections make up the whole stream, or ever come any nearer to making it up. They are, therefore, nothing of it. The intellect, that is, seizes literally "nothing" of reality.

If we look now for a moment at another analysis by which Bergson has always appeared to set some store, we shall find this view confirmed. What is the upshot, from the same standpoint, of his famous criticism of the ancient Eleatics, the victims *par excellence* of the intellectual method? Zeno proved that an arrow during its flight never moved. How could it? In any one moment it could not be in anything but one spot. It could not be in two. In each one moment of its flight, then, it must be still. That is, it is always still. Hence in this moving thing, at any rate, the movement is illusory. And every kind of change could be proved illusory by the same argument. Where is Zeno's mistake? He should have seen, according to Bergson, that the movement must not be confused with its trajectory. The arrow makes a path. It leaves a trail behind it, so to speak, in the air. Zeno's mistake is that he confuses the *flight* with this imaginary *line*. The flight is movement. The line is quite still. Now, though intelligence can comprehend the line it cannot comprehend the movement. It vainly tries to apply to the movement thoughts only adapted to the line. It assumes that the arrow is in a series of positions along the line, one after another, and that these successive positions make up its flight. They do not. They only make up the line. All the positions are

¹ *Creative Evolution*, p. 324.

static—portions of space. You can no more construct the flight out of them than you can construct movement out of immobilities. But Bergson is not here content to say that the immobilities by themselves are not the movement. They, again, are no part thereof. He does not say only that the positions do not make up the flight—that the moving arrow *was not* its position in space, or that it never *was* a point in its course. The arrow, on his argument, was never *at* a point of its course. It was never *in* a position in space. Which can only mean that the movement is not bound up with any course, nor can it in any way have positions implicated in it. The arrow was *only* flying, never occupying positions at all. However explicitly, then, it may be asserted afterwards that the movement contains “more” than a number of adjacent positions, there is nothing in the analysis to show that it in any sense contains these. To the movement they are an irrelevance. In reconstructing it, you have no use for them. And seeing reality is movement, these “positions” are nothing to it. They drop out.¹

What, then, are we to conclude from the explicit analyses which underlie Bergson's main position, except that those views which the intellect gets of reality advance it nothing at all, so far as its aim of reaching reality is concerned? The “snapshots” which it takes when it confronts reality are in exactly the same position as the “nothing” which it occasionally sees there too. They do not exist. We have to cease to reckon them, because we have to cease to reckon negation, as constituents of the real. Nor is intelligence alone in its bankruptcy. It drags much else along with it in its fall. So far as they are intelligent, perception, imagination, language and moral practice all perpetrate the same absurdity, of inserting negation into reality. If we are to combat this tendency we must fight against all of these; a thing which Bergson declares modern philosophy has failed to do, and the ancient philosophers never tried. “A true knowledge,” he says, summing up his comparison of Ancient and Modern Thought, “would have called upon the mind to renounce its most cherished habits. It would have transported us within becoming by an effort of sympathy . . . The moments of time, which are only arrests of our attention, would no longer exist; it is the flow of time, the very flux of the real, that we should be trying to follow.”

Now, there might be little to regret in all this, if the things we are called upon to reject were things of no value. But is this so? There are doubtless habits of our mind which we

¹ *Creative Evolution*, p. 325 ff.

might surrender with little sorrow. But is the habit of trying to co-ordinate our world, gather its scattered elements together, thrust them back from us and get above them, one of these? Is the habit of perception, or that of imagination, or that of friendly discourse? All these, on this view, hide the real. As regards language, its very verbs do not express any motion. Perception and imagination too figure to themselves as the real, the static, the empty gap in the real. And practice, to which they are all yoked, blinds us most of all. The "man of action"—great man, as we should prefer to call him—grasping all the events of his time in one view, does not see these events as they really are. He cannot, for he must stand outside them. He dare not be immersed in them, or he would be "led by them". In the interests of practice he refrains from sinking himself wholly in the stream of change, and thus fails to grasp reality as it is. To whatever degree he would reach the real, to that extent and degree he must cease to be a great man of action. No wonder that Bergson speaks so impressively of the wrench we must make if we wish to reach reality. It is possible that after making the Herculean effort to "install ourselves into duration straight away" there may be something to gain; but it is certain that there is something valuable to lose.

III.

We began by describing a typical pessimistic conclusion regarding the destiny of the world which we said might readily be drawn from the depositions of natural science. And we noted the contrast which Bergson's theory seemed to present to this. We have since found that Bergson's view has a pessimism of its own. Is there any relation, now, between the two kinds of pessimism? Is there not a difference to note between the two? So far we have said practically nothing about Bergson's specific theory of development. Is there not here in particular a great difference of the two views—a difference between Bergson's vision of the evolution of life and any view which would regard life as simply a roundabout way towards death, or should have no ultimate prospect for the universe except to become a silent waste of lifeless matter? And is this difference not in the direction of optimism?

Let us recapitulate our results. If the doctrine expressed in *Creative Evolution* is strictly taken, reality is a continuous undifferentiated movement. It is true that, under the gaze of human intelligence, the solid stream breaks, as one might

say, into innumerable wavelets, which give it much richness and beauty. But these breaks are not the flow. They are stops in it. They are not reality but an artificial distortion of reality. Now this pessimism is not altered—it is only expressed in another way—if, instead of saying about these differentiations that they are gaps which are not there, you say they are things which *are* there, but of which—so far as concerns movement—nothing can be made. Suppose you find it hard to say, in so many words, that the arrow during its course is never anywhere. Instead, then, of saying that it did not occupy successive positions at all, say that the positions were there and were occupied, somehow; the movement was a reality, and so were the intermediate points; but the one has nothing to do with the other, and each is to be set down, so far as the other is concerned, as an irrelevance and an inexplicability. Then, instead of regarding the movement as real and the line it traces as nothing but an empty halt, you may come upon a mode of expression which puts the difficulty in the only really philosophic way. You may prefer to say that there are two reals, with no relation to each other. This is the root of the malady. We may express it thus: the *ultimate* real—the world which both the “reals” are in—cannot accommodate its members. Reality is movement. But, it seems, it is also stopping. And movement has nothing to do with stopping. The real has sundered itself. It has dispersed itself into two channels and lost its way. That is the pessimism.

Now, if we resist the temptation to isolate statements, if we dwell only on the broad spirit of the teaching, we shall find it very hard to regard Bergson's evolution theory as anything else than a doctrine that the universe has lost its way, or else that it never had one. It is, in essence, a theory of the progressive segregation of all the different lines of evolutionary advance. At the beginning of the process it is the vast, original impulse of life; which, as it prolongs itself through the successive evolutionary periods divides and again divides, branching off sheaf-wise, into a continually increasing number of continually diverging channels. One of these lines has terminated, so far, in man. Another terminates in the ants and bees. Others in other forms of life; each line tending to divide itself again. These channels do retain some sort of unity with each other. But there is nothing in their courses of the nature of a plan. To entertain such an idea is one of the most fruitful sources of error. The notion of final cause is already admittedly bankrupt, in the narrow, “external,” childish sense of the scholastics. But the notion of

an immanent end is really as much bankrupt as the other. There is no idea of an end implicit in the beginning, in the evolution process. In fact the great mistake of the Natural Philosophy of Aristotle and of all who have followed him lies, the author tells us—and he italicises the whole passage—“in seeing in vegetative, nutritive and rational life three successive degrees of one and the same tendency, whereas they are three divergent directions of an activity which split itself up as it grew”. The unity which the diverging channels of evolving life possess comes only from the fact that in some of them—notably that which ends in man—there is a faint trace, still, of their common source. But their movement is directed away from their source. Thus “the harmony lies behind, not before”. So far from there being a growing plan in the course of nature, there is less and less plan, more and more discord, as we trace the movement forward. “Life, in proportion to its progress, is scattered in manifestations which undoubtedly owe to their common origin the fact that they are complementary to each other in certain aspects, but which are none the less mutually incompatible and antagonistic. So the discord between species will go on increasing. . . . Evolution is not only a movement forward; in many cases we observe a marking time, and still more often a deviation or a turning back. . . . Thence results an increasing disorder. No doubt there is progress, if progress means a continual advance in the general direction determined by a first impulsion; but this progress is accomplished only on two or three great lines of evolution, on which forms ever more complex appear; between these lines run a crowd of minor paths in which, on the contrary, deviations, arrests, and set-backs are multiplied. The philosopher who begins by laying down as a principle that each detail is connected with some general plan of the whole, goes from one disappointment to another as soon as he begins to examine the facts.”¹

As regards the general position which they indicate, these quotations cannot be made clearer by comment, and we pass on to our contention. We are not concerned here with the facts of biological evolution. What we do say is, that if this ultimate scattering of the life of the world be the last word which there is to say about those facts, then the last word is a pessimistic one. It has all the pessimism of a theory which banishes a large portion of its human value from the realm of being. By far the most of what is realised in the total

¹ *Creative Evolution*, pp. 109-110.

experience of living beings is here placed beyond the reach of any single kind of living being. And there is no way whereby man can recover it, short of setting himself against the whole principle of things. Indeed, take the view in its stringency, and we must go much further in our indictment of it. It is not a modified but a total pessimism—one as complete as that of the materialistic view with which we started. In what consisted the pessimism of that view? It lay in the fact that no "end," in any human sense of the term, could be discerned as the destination of reality. Now the present view, if we take it in its stringency, is in exactly the same case. If the movement of life (which movement is the real) is scattering itself as it proceeds; if, in virtue of its principle, it is scattering itself ever further; then it is as true on this theory as on any other, that there is no "end". There is here no real justification for speaking of the stream of life as sufficiently one, to make towards an end. It was not one, even in its beginning. If its progressive sundering of itself into greater and greater discord was its obedience to its own inmost principle, then its nature never was a unity. We have, strictly speaking, no right to speak of "nature" in the singular number at all. And if there is no nature there can be no "end" for it.

Bergson is partly prevented from feeling the full logic of his evolution theory, because of the way he permits himself at odd moments to personify the very nature which he is depriving of a principle. Thus, contrasting the development of an individual's various mental faculties with the development of nature's various species, he says: "We choose [in the course of a life] without ceasing; without ceasing, also, we abandon many things. The road we began to pursue in time is strewn with the wrecks of all that we began to be, of all that we might have become. But nature, which has at command an incalculable number of lives, is in no way bound to make such sacrifices. She preserves the different tendencies that have bifurcated in their growth. She creates with them diverging series of species which will evolve separately."¹ Again, speaking of the question whether animal or vegetable life represents the more fundamental direction of the advancing stream, he all but permits himself to speak of the intentions of nature. He raises questions of the form: "Which of the two is likelier to be the one which we could imagine nature having made her main object?"² And to personify is, of course, to render the thing personified the

¹ *Creative Evolution*, p. 105.

² See e.g., *Creative Evolution*, p. 122.

most intimate of all possible unities. It is this way of speaking—or rather, this fatally easy way of forgetting what he is in principle doing with nature—that gives Bergson's theory the appearance of superior human worth to a materialistic version of the universe, or even to an idealistic one. Hence his claim that such a theory as his is better—has a higher human interest—than one which would have made nature the realisation of a plan. "A plan," he says, "is a term assigned to labour; it closes the future whose form it indicates. Before the evolution of life, on the contrary, the portals of the future remain wide open. It is a creation that goes on for ever, in virtue of an initial movement. This movement constitutes the unity of the organised world—a prolific unity, of an infinite richness, superior to any that the intellect could dream of, for the intellect is only one of its aspects or products." But if there be no "outline plan" of the end of evolution in its present or its past, if there is less harmony as it goes on, and, more than all, if the increasing discord is not an accident but, as Bergson seeks to prove, "must be so," then the above language is not justified. Nature cannot be either "good" or "open" or "one" or "prolific" or "rich" or "superior," unless *it is something*. But, if the theory is true, even the "it" is a metaphor. There is no "nature". There are only a number of mutually antagonistic tendencies,—if we can still speak of tendencies when we have deprived them of an aim. Bergson's picture of a "sheaving" evolution ends logically in a desert of atoms—atoms of "life" if you will, but atoms—a desert as comfortless as any materialistic hypothesis could contemplate. The only possible escape from it would be for some privileged atom to turn against its own principle and, travelling back up its own course, entice its neighbours to turn along with it, and reabsorb them at the junctions of the stream. But that is only further postulation. That miracle itself then cries out for explanation.

The pessimism thus found in Bergson's work is something more than a mere flavour which a delicate intellectual palate may detect in certain of his more abstruse reasonings. It is the ultimate character of his system. The unreality of negation—and the pessimism is all in that doctrine—is something more than a harmless piece of scholasticism with which he rounds off his work. It is the inspiring spirit of all his manipulation of concrete biological data. The "nothing" which appears as a mere psychological curiosity which a man may amuse himself trying in vain to see or hear, is really the very chasm which yawns between the various divergent

lines of evolutionary progress, is, between the human race and all that it might have been. It is that which dissipates the value of the world, till no conversation of it or return of it into itself in man or any other being, is consistently thinkable. It is the ultimate grave of all existence.

It is probably superfluous to raise in conclusion the question what Bergson's theory needs, in order to be a real and not merely an apparent optimism. But is the broad answer to such a question difficult to see? Surely the simple requirement is that he believe in negation—recognise the power of the human spirit to sustain negation, and even its deep need for such. To man at his best, to man at the height of his faith, a very complicated plan is a plan. And, we would add, it takes no very simple one to be, to the religious soul, intolerably unworthy of God. But is there not a heroic element in the human mind, whose depth Bergson fails anywhere quite to measure.

IV.—THE PROBLEM OF FREEDOM AFTER ARISTOTLE.

BY G. S. BRETT.

THE general conditions under which the Epicurean view of life was evolved are familiar to all. The period is usually regarded as lacking in constructive power, and against this view there is little to be said. At the same time some far-reaching changes were made in the doctrines that were being transmitted. The problem of conduct held the first place in men's minds: the classical doctrines were revived and adapted to suit this predominant interest, especially in respect of, (a) the relation between human and divine action, and (b) the right of the State over the individual. The purpose of this essay is to elucidate one point, namely the correct interpretation of the ideas about freedom which are found in the Epicurean school.

Epicurus, we are told, adopted in the main those theories of the universe which Democritus had made peculiarly his own. Democritus had no distinctively ethical doctrine. The problem of conduct as we find it in the post-Aristotelian period is not older than Plato. The return to Democritus, consequently, affords no direct help on these points; on the contrary it proves a hindrance. From the physics of Democritus nothing seems to follow except a doctrine of pure fatalism. The problem before a teacher who had used Democritus as a battering ram against theology was that of finding room for the idea of freedom: it was a question of writing a critique of the practical reason after committing oneself to a doctrine of natural causation.

The final position of Epicurus may be summed up thus:—

(1) Epicurus is opposed to Democritus; (2) his answer to Democritus is based on the idea of declination; (3) this declination is not one more form of determination; on the contrary it implies that the mind is capable of any motion up to the time when it actually moves; it is therefore undetermined; it moves only in accordance with the laws of force and is therefore free.

The paradoxical character of the last point is only apparent. Gassendi, in his explanation of it, explicitly states that Epicurus defended freedom on the ground that Fate and Nature, or natural causes, are the same thing. In other words, the fallacy of Epicurus' opponents consisted in so interpreting the idea of natural causation as to get back to the position of those who maintained fatalism. This explanation I believe to be correct. It involves, incidentally, the passage in which Lucretius speaks of the "*fatis avolsa potestas*". This I take to be a power saved from the fates (by Epicurus) to be restored to the region of natural law.

The natural and superficial way of refuting this interpretation is to quote the reputed saying of Epicurus to the effect that "it would have been better to follow the tales about gods than to be slaves to the fate of the physicists". A very little logic will be enough to show that this passage does not help us. Epicurus may tell his opponents that of two errors he prefers the less; it does not follow that he adopted either as his final position. The citation is quite irrelevant and need not cause further trouble. We proceed to deal with the question on its own merits.

The early Greek philosophers were keenly interested in the question of origins. Somewhere in the beginning of time there was a beginning of things or, at least, of things as they now are. Democritus attained a solution of the problem which was of first importance as a working solution of the scientific problem. It was at no time found satisfactory in every respect. Anaxagoras represented another line of thought which appeared to his contemporaries likely to be in many respects better. The difficulty most keenly felt was that which arose from the consideration of order in the universe. The method of Democritus seemed to involve an absurdity: he had, to quote a modern opponent of materialism, tried to prove that a shower of letters could result in a Shakespeare. Anaxagoras did at any rate face the problem of order so far as to declare that there was one overruling power that made for order in the universe. But still the difficulty remained that the idea of order seemed to necessitate an intelligent ruler of the universe. Plato, with his strong ethical trend of thought, found Anaxagoras unsatisfactory in this very respect; he desired to go farther and actually to assert that the world is not only intelligible but also derives that character from intelligence. In the recorded objections to Anaxagoras and such passages as *Laws*, 888 E, we can see the evolution of this point of view. A purely physical

doctrine really implies that reason works only in the sphere of art; the products of reason are therefore artificial; the State is only an artificial product, a secondary result inferior to the natural; while the natural is best but it is not rational. From this position there was no escape but one: art and Nature must be reconciled through reason and the world must be viewed as the supreme work of a supreme artist.

In solving this problem Plato created another. From his statements it seems as if the end of existence was not only the good but also a good which man could not avoid. Heraclitus, Anaxagoras, and Plato were united by the Stoics: the actual opponents whom Epicurus had to face were these latest advocates of a Reason which combined all the advantages of complete causality with an unblushing acknowledgment of fate. In one case particularly Stoicism was found wanting. Carneades went forth from the Stoic schools a wiser but also a sadder man: he determined to probe further this assertion of predetermination. He discovered what Chrysippus before him had been discovering, namely that Plato was not Aristotle and that it was worth while rethinking the Aristotelian idea of co-operating causes. History has repeated this movement in the life of J. S. Mill; he too found that the science of Hartley led to a mechanical system and inevitable necessity; he too denied that a belief in Freedom meant a return to chaos; in the mediating view of co-operating causes he found the solution of his difficulties.

The problem before Epicurus had two distinct aspects. The first is the question, What conception of causation will admit the idea of universal freedom? The second is the question, How can we explain the origin of the world on the fewest possible assumptions? The two aspects of the problem are united through the fact that both are problems of causation. The ultimate factors are declared to be matter and motion: the matter is of one kind, things being complexes of atoms; but there are different kinds of motion. If any differences are to be discovered in types of causation these will be expressible as different types of motion. We must therefore first consider the species of motion.

Epicurus recognised two main types of motion, that which is in a straight line and that which involves a deviation from the straight line. The former is motion *κατὰ στάθμην*: the latter *κατὰ παρέγκλισις* or declination. As motion is inherent in the nature of the atom, both these motions belonged to the atom before the formation of bodies. The most important point in the development between Democritus and Epicurus is the degree to which the concept of chaos was progressively

refined. One after another the writers discovered that the term was being used to cover a multitude of suppositions. The last to be detected and expelled was the notion that directions could be said to exist in a chaos. Directions, properly speaking, can exist only in a cosmos. In fact, the state of chaos, properly understood, is a state devoid altogether of predicates. Simplification, that most difficult of all philosophic tasks, was at last achieved, and it was understood that an atom in chaos has no relations; as soon as it has relations and predicates it has passed into a system and a cosmos.¹

Now if a cosmos is essentially a system of things controlled by laws, where do these laws come from? The problem now is to describe accurately the process by which a world generates its own laws. Anaxagoras had seen the problem but solved it only by positing an agent, a force that made for order. Plato was, from the scientific standpoint, still more lavish of assumptions. If the Epicurean must not multiply entities beyond necessity, the origin of law must be found as immanent in the very process by which the cosmos forms itself. This was clearly the aim in view. Suppose then that we start with nothing but matter and motion. There will be in the first place no talk of up or down; still less will it be possible to use any teleological terms; we shall get rid of the latent assumptions of earlier physical theories and the explicit assumption of an end in the teleological sense. If motion can be described without any final cause or fixed end of motion, the terms used must refer solely to the parts of the vacuum traversed. Every body that moves changes its place and consequently generates a series of places which have a relation to each other. This series, the loci of the moving atom, constitutes a direction and in this respect the movement is *κατὰ στάθμην*. To avoid the infinite regress the atom is said to cause its own motion, and this is just as legitimate as putting before the first motion a first mover. Prior to the formation of the cosmos the movement would be purely indeterminate: for the atom would be free from any of the limitations which are imposed upon it so soon as it enters into relation with other atoms. There is therefore no objection to including among the other forms of motion that which is different from any actually generated series of motions. Such a motion is a

¹ For an example of the dialectic employed on this topic *v. Usener Epicurea*, § 279, and compare the points made in the Epistle to Herodotus (*Usener*, pp. 18-22) especially the distinction of primary and perceptible (secondary) motions.

swerving, due entirely to the activity inherent in the atom. If we pause to ask why Epicurus reduced all motion to two types and no more, it seems obvious that this can be the only reason. There are exactly two because there can be only that which is and that which is not, the actual and the possible. This is, so to speak, the final disjunction: and the disjunctive proposition was one that engaged considerable attention at this period.¹

The theory of declination, then, emerges as the product of that dialectic of chaos by which the concept was progressively refined. We may describe this, if we will, as Epicurus' myth of creation, a chapter of his book of genesis. It has at least the virtue of being wholly impersonal, and no one can doubt that the opponent of Plato and the Stoics desired to purge his system of all those elements which were derived from the idea of personal control. Providence in all its forms is ultimately an idea that starts from the notion of personal control: the elimination of the personal element makes the term Providence meaningless. The Stoics abandoned their own doctrine when they tried to explain what Providence could mean as the function of an impersonal Reason. Epicurus succeeded in stating his theory so as to avoid any suggestion of predetermination, especially that of motion in a given direction impressed by a Creator. From this statement it follows that laws are not antecedent decrees: they are purely the constraints of circumstances which arise so soon as the atoms come into contact one with another. Employing a later terminology we might say that to the atoms all motions are possible, bodies have only the motions that are compossible. The notion of weight did not trouble Epicurus in this connexion, for he had no clear idea of what is involved in gravitation: weight appears to have been added to motion in order to explain collision, which clearly requires momentum.

B.

So far we have nothing more than a dialectical treatment of the opponent's position. It has been shown that the physical philosopher tends to have a continuous regress of causes; he therefore asserts that a result can always be treated as an effect which, as the product of known causes, can always be completely known. But the first cause can-

¹ See *Usener*, p. 19, § 61, 62, where the meaning clearly is that definite movement is secondary and implies indefinite movement as the first hypothesis. For the disjunctive judgment *v. Usener*, § 376.

not be an effect; it cannot be explained on the same principles; it is beyond the range of science and belongs to dialectic.¹ If we press this question of a first cause we can show that the Fate of the physicists is really no more than that cause at which they chose to stop. What the physical philosopher had really done was to take cause as a necessary relation and then convert it into the idea of the necessity of relations, and finally into the necessity of just those relations which he found given. When this error has been detected we have achieved the first step, namely the negative criticism of the concept of fate. For the weaker brethren this will be enough; if the incubus of Fate is exorcised they can go on their way rejoicing; effort may not be intelligible, but it is at any rate not proved useless. Epicurus aimed to eliminate from the universe in which we live anything that keeps the soul of man in fear or subjection. He therefore tried to prove that human imagination is alone responsible for the two overshadowing powers, the gods of theological tradition and the Fate of the physicists. These two he united, as in the passage quoted above; and he proposed to reject them both. They are not an exhaustive statement of all possibilities; there is another possible view. This third position will now be explained.

The meaning of freedom is explained by Epicurus in the term *ἀδείσποτον*.² To be without a master is the condition of one who is a slave to nothing. The sense in which the Gods are the masters of men is too obvious to need explain-

¹ A remarkable statement on this point is found in Huxley, *Method and Results*, p. 103. "In the past history of the universe, back to that point [i.e., the beginning of a universe out of one substratum and one energy], there can be no room for chance or disorder. But it is possible to raise the question whether this universe of simplest matter and definitely operating energy, may not itself be a product of evolution from a universe of such matter, in which the manifestations of energy were not definite—in which, for example, our laws of motion held good for some units and not for others, or for the same units at one time and not at another—and which would therefore be a real Epicurean chance-world."

Huxley finds the "air of this region of speculation too rarefied"; the ancients felt their limitations less keenly and Epicurus did not know enough science to shrink from a dialectical treatment of the very problem of which Huxley prefers to say, "*ignoramus et ignorabimus*". Epicurus would have agreed with Huxley's words: "Fact I know; and Law I know; but what is this Necessity save an empty shadow of my own mind's throwing?"

² A Platonic word used in *Rep.*, x., 617 E, in a connexion which is significant. Our mode of life, says Plato, is of necessity: yet virtue has no master and the responsibility remains ours: it is the universal, the major premise, that is given as something not ourselves but the particular choice is our own way of making for righteousness. For the Epicurean statement see *Usener*, p. 65, § 133.

ation. Fate is our master when understood as some power antecedent to man and predetermining the issues of all action. The fate here meant is particularly that of the Stoics. Cicero stated the nature of this Fate when he said "*imposuistis in cervicibus nostris sempiternum dominum, quem dies et noctes timeremus*". This is the "*fatalis necessitas*" which the Stoics call *εἰμαρμένη*. This concept of fate is attacked by Epicurus on both its logical and its physical side. His rejection of the disjunctive judgment, 'to-morrow Hermarchus will be either alive or dead,' is a denial of predestination, a denial of the doctrine that a necessity of thought involves a necessity of existence. His opposition to the determinism which results from the Stoic pantheism is not a simple refusal to accept it, but the maintenance, in opposition to it, of the idea of concausation. A passage in Diogenes Laertius describes the ideal man as having no belief in necessity, links freedom with responsibility, and says that some things are referred to fortune, some to ourselves. This is clearly a reversion to the position of Aristotle: Epicurus develops the doctrine of Aristotle as a counterblast to the Stoic development of Platonism. The real doctrine of freedom taught by Epicurus is simply the later doctrine which arose from the idea of man as being *συναίτιός πως*.

If we examine the history of Stoicism we find a slow process of modification going on within the school. On the one hand Epicureanism was losing its significance as the opponent of Stoicism: on the other, Stoicism was returning (in Posidonius) to the Platonism from which it started. Carneades saw clearly the essential feature of the situation and his point of view forms the culmination of this dialectic struggle. Epicurus really attained his end when he dethroned Necessity. It was left to Carneades to build up a new position that could rank definitely as a philosophical "platform". Looking first at the development of Stoicism we find a modification of the original fatalism in the teaching of Chrysippus. He seems to have been aware of its evil effects on character; he tried to break the chain of causation and leave the future undetermined though the past was completely necessary. In this attempt he too employed the idea of co-operating causes. The example he chose was that of a cylinder in motion: the mover is the cause of the motion, but the nature of the movement is determined by the nature of the cylinder. Similarly the object presented to the mind necessitates some motion but the nature of the motion is to be ascribed partly to the mind. The doctrine of assent (*συγκατάθεσις*) was a point in which the Stoics had also admitted mental activity as a factor in

choice. These attempts to make room for freedom in a system essentially fatalistic show that the problem was appreciated. It was approached from the side of co-operating causes. Failure was, however, inevitable so long as the factors in the causation were already determined. The "mind" of which Chrysippus is speaking is endowed with definite activities that have come to it from without: it belongs substantially to a world which has substantial laws, *i.e.*, modes of action inherent in its substance. A mind that is part of a whole whose laws it must fulfil, cannot be set free. The crucial difference between Stoic and Epicurean consists in the fact that for the Stoic a cause is a reality inherent in a substance, for the Epicurean it is an attribute: the Stoic can distinguish between active and passive matter; for the Epicurean all matter is active: the Stoic can speak of intelligent efficient causes, the Epicurean only of physical laws. The Stoic was unable to employ successfully the idea of co-operating causes in order to establish liberty because the co-operating factors were determined already by implication. Epicurus had thrust his indeterminism back to the very beginning, and was therefore free to employ it throughout. The evidence that it was employed and the particular form the argument took are to be found in Cicero, *De Fato*, xi. Carneades is there represented as blaming the Epicureans for deducing the defence of freedom from the doctrine of declination: it would have been better to deny necessity on the ground that there is such a thing as voluntary motion. Voluntary motion is the antithesis of necessity because necessity implies a cause which is antecedent and external: voluntary motion has no antecedent and external cause. We cannot however say that voluntary motion is causeless; on the contrary there is a cause but it is a cause which is identical with the nature of the agent. The mistake made by Epicurus therefore was in going out of his way to prove this point in physics, namely that the cause is identical with the nature of the agent: he might just as well have started from the practical question and proved it directly in reference to man. By this time no one seemed to care whether an atom was or was not free: for Epicurus the question arose in a different context.

The position taken by Carneades must be judged in relation to his psychology. With a power of analysis which has hardly received the attention it deserves, Carneades eliminated from the object all such causality as determined the mind: he especially opposed the idea that the quality of

compelling assent could belong to an object;¹ and if he thereby lost a criterion of truth he gained what was more important, an activity of the practical reason wholly unimpeded by metaphysical presuppositions. Carneades, as we know, was a hearer of the Stoic teachers who ended by finding their doctrine unsatisfactory. We see here exactly how he differed from his teachers. Their doctrine of assent was vitiated by trying to make the nature of the object a direct cause of the assent. This intrusion of Fate into the analysis of knowledge did not please Carneades. He desired to get nearer to a pure analysis of experience: for him conviction was the end of a process of deliberation that had no such extra-mental factors. For him the factors which produce assent are reasons rather than causes, logical antecedents rather than physical (objective) attributes. In thus making certainty a conviction towards which a man may freely move, Carneades removed one more stone from the foundations of Stoicism. The work of this period is essentially the destruction of idols: the metaphysics of pure reason give place to the justification of the practical reason. It is man rather than the universe that occupies attention, and effort is limited to getting a clarified view of the means by which men reach the conditions from which action results.

C.

These considerations show that the Doctrine of Epicurus was part of a movement in which the Stoic joined and which was completed outside the limits of either school. The elimination of Fate has been carried out in connexion with physical and epistemological problems. A brief review of the ethical position will close the subject.

For a doctrine which is intended to give a middle course between fatalism and the denial of causation, the permanent conditions of human action are of primary importance. Epicurus mentions the limitations of human power and these coincide with the limitations already mentioned by Aristotle. The heavenly bodies have a kind of necessity which regulates their course: the stars may have received an impulse from east to west by the appointment of Fate. These are cases of *οὐκ ἐνδεχόμενα ἄλλως εἶναι*: the instances

¹ The credit of beginning this attack belongs to Arcesilas. In *Sext. Emp.*, vii., 411 (p. 451), the expression used is *οὐ τοίνον ἔχει τι ἰδίωμα ἢ καταληπτικὴ φαντασία*. In other words the Sceptics deny the objectivity of certainty or the existence of an objective cause of certainty.

correspond to the *αἰδιοὶ κινήσεις* of Aristotle's *ἀστρολογία*. Epicurus does not care how these facts are explained, for this is the kind of scientific fact which seems to him devoid of relation to our actions. Some had, indeed, made these facts an important element in human life: the astrologer went beyond his limits and made astronomy into a pseudo-science of fate. So, on the one hand, Epicurus is anxious to explain away the superstitions that attach to the movements of the stars, while he realises the fact that the order of Nature is not the cause of our actions but the sum of conditions under which we act. But here the question arises: where do these limitations cease? Is not man, though free from external compulsion, still the victim of forces within himself, the slave of passions and desires from which his nature is never free? This question Epicurus answered in a way that appears now to be ludicrously inadequate. Having no knowledge of the peculiar problems that arise from the idea of inherited dispositions he can adopt the optimistic view common to Greek writers and maintain that our natural passions or desires are few, and Nature provides for them abundantly. It is interesting to note here how the Epicurean view comes midway between that of the Greek poets and a modern view. The poets had embodied the idea of inherited sin in their conception of divine justice: Epicurus lost this point of view partly through his desire to emphasise the freedom of the individual and partly through his "atheism". Modern determinism frequently revives the essential elements of the Æschylean view in its interpretation of the natural limitations of action. Epicurus established for his own time one important point. The Stoic inclined to overwhelm the individual by impressing on him his relation to the Whole: Epicurus aims at showing that the Whole comes into consideration only in very few and simple manifestations. Life as we actually live it is not an affair into which the Whole as such can be said to enter: it is rather a series of interactions between one part and the adjacent parts, between man and his immediate surroundings; so that we can follow Aristotle in eliminating the irrelevant and clearly marking out the sphere in which deliberation is the efficient cause of action.

The ground is now cleared for that statement of freedom which satisfies the demand for moral responsibility on the one hand and cheerful self-reliance on the other. All anterior causes, whether gods or fate or the universe, have been removed. Nothing is fore-ordained and all that happens is the result of man's activity combined with those other ac-

tivities which he recognises as co-operating causes. It is true that effects still arise that cannot be foreseen, but these are due to causes that have been overlooked, not to superhuman agents. The element of chance is reducible to cases of miscalculation and for these there is the simple cure which consists in taking more care and developing the reason as a power of shrewd calculation. The possibility of foreseeing effects implies the reign of law, not law in the sense of fiat or antecedent cause, but natural laws, the law-abiding character of a universe which is free from capricious elements. To secure this reign of law it was necessary to destroy the gods of popular superstition and identify Fate with natural causes, and this Epicurus seems to have done.

It would not be a profitable undertaking to criticise the Epicurean theory from the point of view which a modern theory of conduct adopts. The antitheses of necessity and freedom, whole and part, cause and condition we still have with us; but little more than the form of this opposition is common to ancient and modern thought. In the sixteenth and seventeenth centuries a revival of ancient systems served a different purpose, and a better understanding of those periods is part of the gain derived from a reconsideration of Greek doctrines. Epicureanism so quickly contracted the odour of unsanctity that it rarely commanded a fair hearing of its case. If the historian of philosophy made more clear the fact that the antithesis of Stoic and Epicurean methods depended on the exact way in which the thinkers of the fourth and third centuries B.C. interpreted their predecessors, the later revivals would be more intelligible. Stoicism shows clearly the relation which it bears to Platonism, and its history shows still more clearly that its only principle of development was to expurgate those exaggerations which at first gave it an appearance of originality. The extent to which Epicureanism was grounded in Aristotle and the way in which its affinities to Stoicism no less than its divergences arise from the fact that it took the Aristotelian rather than the Platonic colouring, have never been so obvious. Considered in this light the doctrine ceases to be merely a shallow defence of pleasure even in the sense of rational well-being: it becomes rather one of the fundamental moods of mankind and if it was ever true to say that every man is born either a Platonist or an Aristotelian it is more true that every system of philosophy inclines to be Stoic or Epicurean. Stoicism has been the ally of religion and lives again in the literature of the Fathers and the rhetoric of exhortation; Epicureanism has had comparatively few

able exponents and its latent cynicism has tended to make it an object of aversion; yet whether we study it as it appeared in the days of Epicurus or of Hobbes the same thing can be said of it: "It is poor immoral [stuff]! so you might say in the pulpit, but you know that it probes very deep".¹

¹ *The Philosophy of Hobbes*, an Essay by the late W. G. Pogson Smith, p. ix, in Hobbes's *Leviathan*, Oxford, 1909. Since writing the above I have seen M. Émile Bréhier's work *Chrysippe*. This contains an interesting account of the attempts made by Chrysippus to meet the attacks on Stoicism. I have only referred to these. One point is of special interest. Causality for the ancients implied primarily the existence of agencies that come on the stage as independent actors: hence the idea of a chain of causation was an innovation: but this is not destiny unless we can prove that there are not several chains or series of causes existing at one and the same time. The required unity was obtained by the hypothesis of sympathy (Bréhier, 185-186). The opening for the opponent's attack is obvious. In view of the traditional opposition between Theism and Epicureanism it is permissible to direct attention to Dr. Ward's lectures (*The Realm of Ends*, Leath: xiii., xiv.)

V.—CRITICAL NOTICES.

Platonische Aufsätze. OTTO APELT. Leipzig and Berlin: B. G. Teubner, 1912. Pp. v, 296.

DR. APELT's already established reputation as a writer on the history of Greek Philosophy, and an editor of Plato, is fairly sure to act of itself as a strong recommendation of this volume of essays to the student. The essays contained in it are twelve in number, and eight of them now appear for the first time. Of these twelve papers, the last two, which are studies of the two dialogues *Hippias* and the *Sophistes* will perhaps appeal mainly to the special student; the remaining ten, which deal with such topics as "The Place Above the Heavens," "The Humour of Plato," "The Statesman's Problem," "Plato's Theory of Punishment," are addressed equally to the reader of general culture. There are many excellent features which mark the whole presentment of the topics chosen for exposition. Dr. Apelt writes clearly and vigorously, he lays full stress on the important point that the *Dialogues* do not present us with a ready-made artificial system, self-identical from first to last, but show us Platonic philosophy in the making, and he rightly makes the greatest use of the ripe wisdom of Plato's old age as garnered for us in the magnificent, though too often neglected, *Laws*. He has a genuine enthusiasm for his author, particularly as the first philosopher to formulate and illustrate with his marvellous eloquence the great ideals which give human life its worth. It need hardly be said that even in his most "popular" pages his work is that of a scholar well-read in the criticism and exegesis of scholars who have gone before him.

At the same time Dr. Apelt exhibits from first to last a certain bias which, as I think, often stands in the way of correct interpretation of special passages, and even prevents his work from doing full justice to the Platonic type of philosophy. He writes not only as a scholar but as an adherent of a specific philosophical school, and this leads him, as I think I can show, sometimes to expound Plato unnaturally in order to find the modern views which commend themselves to him in the text of the *Dialogues*, sometimes to belittle the value of a Platonic doctrine because it does not fit in as closely as might be wished with the special doctrines of his own school. In fact, in the bulk of the essays, which deal with Plato's ethical and theological position, so much stress is laid on the conception of Plato as an imperfectly enlightened "precursor" of Kant, and in the treatment of the *Sophistes*

Plato is so severely handled for not having anticipated certain, as I hold, largely mistaken theories of Fries and the younger Reinhold, that an ordinary reader might be pardoned for wondering that Dr. Apelt should bestow so much praise on a philosopher who, by his own showing, fell into so many and so obvious mistakes. The curious thing is that Dr. Apelt repeatedly subjoins to his unfavourable criticisms the very observations which form their best refutation. In more than one essay the criticisms read as if they were first impressions followed by more considered afterthoughts which really destroy the whole effect of the original comments. Now, while I heartily agree with the principles of exegesis laid down by the author, as well as with much that he says of the analogies between Platonism and Kant, I cannot satisfy myself that where there is a genuine divergence between the two philosophies, Kant always, or even usually, has the advantage on his side. And I feel convinced that the logical doctrines on the strength of which much of the *Sophistes* is condemned are little better than antiquated confusions from which the development of modern exact logic has happily delivered us. I propose, therefore, to dwell on some of the points raised, with a view to suggesting that Plato is not really open to the criticisms his exponent passes on him, as well as to discussing a few pieces of special exegesis in which Dr. Apelt seems to me probably or certainly mistaken. I may begin by making two general observations which affect most of the essays. Dr. Apelt rightly lays stress on the point that Plato's dialogues are all strictly dramas, and that his "Socrates" is a dramatic character. He does not, however, seem to me to have considered the natural inference from this fact, *viz.*, that the *dramatis persona* "Socrates" is presumably modelled in a highly realistic way upon his prototype, the son of Sophroniscus. Hence he tends too readily to regard him as a "mask" for the author of the dialogues, and, for example, to regard the unmeasured condemnation of *δημοκρατία* in the *Gorgias* and *Republic* as an expression of Plato's personal feelings. I think this very common view highly improbable. Not only do we find quite a different spirit in the discussions of the *Politicus* and *Laws* about *δημοκρατία*, where Socrates is not the speaker; this might be explained, as it is by Dr. Apelt, on the supposition that Plato's political judgments became milder as he grew older. But what we have to explain is (1) the inconsistency with the tone of the seventh *Epistle*, which shows that Plato felt no violent personal prejudice against democracy as such, and had even at first hoped to play a statesman's part in the revived democracy of the fourth century, and (2) the striking fact that the *δῆμος* depicted in the *Gorgias* and *Republic* is quite unmistakably that of the Periclean age, as it showed itself in the life-and-death struggle of the Peloponnesian war. This kind of democracy—the democracy of Imperial Athens—passed away for ever in Plato's early manhood, and it is therefore hard to explain why he should have felt so bitterly about the

defects of a past régime. The language of the *Gorgias* and *Republic* reads much more naturally if we take it as reflecting the actual sentiments of a shrewd and brave old man who had known the Periclean system in its highest splendour and learned by bitter personal experience how its ἀδικία, its inherent vice of reckless "Imperialism," had led to the chaos and shame of the years from the surrender of Nicias—the real end of the Periclean democracy—to the catastrophe of 404-403.¹ So, to take one or two minor instances—it is, I think, a sad mistake in judgment and taste to say with Dr. Apelt that Diotima in the *Symposium* is a "mask" for Plato himself. For, in that case, the well-known words in which Diotima hints that there are mysteries higher than those into which Socrates can be initiated must be understood, as Dr. Apelt seems to understand them, to be a disciple's claim to be greater than his master. One hesitates to find Plato guilty of this piece of self-praise, and I would suggest that Dr. Apelt has been led astray by failure to see the intentional humour of the passage. The words are, I suggest, merely a witty device to save Socrates from standing committed too deeply to the "mystic" doctrines. As Prof. Burnet has said, Socrates in Plato is regularly represented as impressed by certain mystic doctrines, and holding that in their main outlines they are probably near the truth, but he never quite commits himself to the details of the ἱερὸς λόγος; his pawky "irony" stands in the way. So the hint that the imaginative splendours of the "beatific vision," as expounded by Diotima, are beyond the reach of Socrates seems to me a mere device to lay the responsibility for the account of it on other shoulders. The point has its importance, because, if Diotima means Plato, we shall have to regard Plato as personally a thoroughgoing mystic, whereas, in point of fact, the markedly mystical strain hardly appears in his dialogues except when either Socrates or a Pythagorean is the speaker. In my own judgment this means that Plato was not personally much of a mystic at all, though he well knew that his master had been so. This conclusion should be welcome to Dr. Apelt who cherishes a violent hatred of mysticism, as becomes a Neo-Kantian, and repeatedly complains that Plato has allowed mystic tendencies to spoil his philosophy. My own estimate of the worth of the mystical experience is very different from Dr. Apelt's, but I feel bound to record my opinion that the mystic who inspired the *Symposium* and *Phædrus* was not Plato, but Plato's friend and teacher, the son of Sophroniscus.

Another case in which Dr. Apelt, to my mind, goes seriously wrong in the same way is his attempted identification of the Callicles who expounds the theory of the "Super-man" in the *Gorgias* with Alcibiades. The argument for the identification is

¹ Who was it who, in 406, was "in love with philosophy and Alcibiades"? Certainly not Plato the son of Ariston.

roughly as follows: (1) Callicles is described as a person who has recently taken up active political life, and has a personal regard for Socrates though he regards the Socratic moral and political ideal as moonshine. But no politician of the name is known to us. Therefore "Callicles" is plainly a pseudonym for some distinguished Athenian statesman. (2) That this statesman is Alcibiades is probable both because the combination of personal feeling for Socrates with political Machiavellianism suits his character, and because the dramatic date of the *Gorgias* is fixed as being c. 427, (when Alcibiades would be just at the right age to be entering on his political career), since the presence of Gorgias in Athens is explained by his connexion with the Sicilian embassy of that year. (3) Alcibiades is called in the dialogue ὁ Κλεινίαιος οὔτος, and the οὔτος implies that he is present at the conversation. But if he is present, Callicles is the only character with whom he can be identified. To all these arguments there is, as I think, a complete rejoinder. (1) We have no certain instance in the Platonic dialogues of a purely fictitious character, or of the use of a feigned name as a disguise for an actual person. With a very few exceptions the personages of Plato's prose dramas are all known to us independently as actual personages of the fifth century. The exceptions are Callicles, Diotima, Timæus, Philebus, and his friend Protarchus, the Eleatic of the *Sophistes* and the Athenian of the *Laws*. If any of Plato's characters are merely imaginary, one would think these two last, who have not even names, should be so. Yet the Athenian of the *Laws* is incidentally described in a way which fairly proves that he is meant for the actual Plato. He is an Athenian citizen, an old man, a representative of the doctrines of the Academy, who had personal experience of association with a young and ardent "tyrant," and could speak from that experience of the possibilities of reform offered by the combination of a youthful tyrant with an elderly philosophic adviser. All this, I submit, makes the identification almost certain. The Eleatic stranger can no longer be identified, but careful reading of the dialogues in which he appears will show that he has a very definite dramatic character of his own, so realistically drawn as to suggest strongly that he is copied from a real original whose name Plato could have given if he had chosen to do so. He is quite unlike any of the merely fictitious persons of the modern philosophic dialogue (e.g., Berkeley's Hylas), who are mere mouthpieces for the opinions they are made to utter. The vastly preponderating probability, then, is that the four or five named characters whom we only know from the dialogues are also real persons figuring under their actual names. And there is no earthly reason why there should not have been a person called Callicles who did take some part—not necessarily a long-continued or prominent part—in Athenian politics during the Great War, but happens not to be mentioned by the historians or in such inscriptions of the

time as are already known to us. Not to say that if Dr. Apelt were right in fixing the dramatic date of the *Gorgias* in 427, the sentiments of Callicles would hardly fit what we know of the earliest phase of Alcibiades's public career. But (2) the assumed date is certainly not 427. The only detailed reference to a political event in the conversation is the allusion to the behaviour of Socrates in the famous trial of the Arginusæ generals, which is said to have happened "last year" (473 e). This fixes the conversation to some time in 405-404, and he would be a bold man who would say that no one can have taken a part in the public affairs of that unhappy and confused time except the few persons whose names have been preserved independently of Plato. At this date Alcibiades could not have been present in Athens as he was living in banishment. There is nothing to set against this reasoning except the fact that Pericles is said to be "lately" dead, and that Gorgias is not independently known to have been in Athens in the last year of the war. This is, however, of no moment. Against the loose reference to the "recent" death of Pericles we have to set the way in which he is ranked in the elaborate discussion of *Gorg.* 515 ff., with such famous politicians as Miltiades, Themistocles, Cimon, all of whom are throughout recognised as belonging to the past. (Thus, e.g., the words used of the revolt of the advanced democrats from the domination of Pericles "at the end of his life" in 515 e-516 a, clearly imply that the facts mentioned are far from being events which had occurred within a year or two of the time in which Socrates is speaking.) And it is idle to argue that because we know that Gorgias was in Athens in 427 he cannot have been there at any other date. Dr. Apelt's whole argument is, in fact, topsy-turvy. If there is any anachronism at all in the *Gorgias*, it should rather be sought in the incidental allusion to the "recency" of Pericles's death than in the whole structure of the dialogue. As to the argument from the use of the pronoun οὗτος, it is naught. Two examples of the same usage, where οὗτος is conjoined with the name of some one who is demonstrably *not* present will be enough to prove the point. Thus we have from Plato himself *Protagoras*, 318 b, τοῦτον τοῦ νεανίσκου τοῦ νῦν νεωστὶ ἐπιδημοῦντος, Ζευξίππου τοῦ Ἡρακλεώτου, where the words which immediately follow, καὶ ἀφικόμενος παρ' αὐτόν, ὥσπερ παρὰ σέ νῦν, show that Zeuxis is not present, and again from Euripides, *H. F.* 40 ὁ καινός οὗτος τῆσδε γῆς ἀρχὼν Λύκος, said of a personage who does not appear on the stage before, v. 140.¹ Another important

¹ It is an indication that Plato's Callicles is an historical person that we are incidentally told in passing that he was an Acharnian. There would be no point in recording such a detail if it were merely imaginary. Is any light thrown on the matter by the existence of a later "orator," Callicles, son of Arrhenides (Theopompus, *ap.* Plutarch, *Vit. Alcibiadis*, 25)? This might well be the grandson of a Callicles of the years at the end of the Decelean war.

matter of principle in which I cannot follow the author is that he persists throughout his work in identifying the Platonic εἶδος with a universal, in the sense of a predicate belonging equally to every member of some group of sensible things, and therefore to be discovered by a process of mere abstraction, an *allgemeines Merkmal*, as he calls it. From this point of view it is, of course, obvious that Plato's whole doctrine involves a vicious "hypostatization" of notions, and is condemned by the Kantian rejection of the possibility of "knowledge through mere concepts". But what is overlooked here is that Plato always insists just on the point that the εἶδος is *not* what is present *alike* in all the members of a class, "but a standard or norm which is not, in its purity, present in any of them, but to which they exhibit varying degrees of approximation. This is why the believers in εἶδη are always said to "posit" or "postulate" (τιθέναι, τίθεσθαι) the εἶδος. The process is not that of "abstraction," but of "postulating" an upper limit, never *given* in sense-perception, to a comparative series. And I would remind Dr. Apelt that his distinguished contemporary Dr. Cassirer, whom no one will charge with want of reverence for Kant, only recently published an important work which has as its main theses the propositions that the supreme principles of science are exactly like Platonic εἶδη, postulates of this kind, and that the philosophical analysis of science suffers from the tendency to reduce scientific laws to the status of the mere Aristotelian "universal, which is equally present in every member of a class" more seriously than from any other prejudice. The real question at issue is whether the fundamental concepts of science are products of abstraction at all or products of the process of "passing to the limit". If the second view is true, it follows at once that Plato is right in treating what he calls εἶδη as individual objects of a higher order than sensible things, and that the Kantian assumption that "knowledge through mere concepts" is impossible because the subject of a valid proposition must always be an object given in sense-perception is simply false. To put the matter in a slightly different way, Kant, like Aristotle, assumes that all judgments, or at least all true judgments, can be reduced to the *predicative* form *A* is *B* (where "is" is merely a sign of predication); Plato assumes that predications themselves on analysis are discovered to be reducible to affirmations of relation, which are non-predicative. (Thus for him, *A* is *B* is a way of saying *A* "partakes of" the *B*, where "the *B*" is as much an individual as *A*, and there is no predicate in the proper sense of the word.) It seems to me that the modern creation of the logic of Relations shows that Kant and Aristotle are wrong; whether Plato is absolutely right or not will depend on the question whether predication is an irreducible type of affirmation, by the side of the affirmation of relations, or whether the

copulas of the predicative judgment, the "is a" and "are," are themselves simply relations among others.¹

The effects of Dr. Apelt's identification of "judgments" with "predications" come out clearly in his criticism of the Platonic treatment of the problem of the $\mu\eta\ \delta\upsilon\nu$ in the *Sophistes*. An assertion in which the terms are both pure concepts, such as "riches are not wisdom," he says, is not a judgment at all, but, according to a distinction drawn by Reinhold, a mere "formula of comparison". Not being a true judgment, such a statement does not fall under the laws defining true negation (i.e., those of Contradiction and Excluded Middle), and Plato's account of $\mu\eta\ \delta\upsilon\nu$ as $\xi\tau\epsilon\rho\omicron\nu$ is correct and adequate so far as such a formula is concerned. It only means that the concept "riches" is a different concept from "wisdom". As the Law of Contradiction only applies to the true predication, where the subject is not a concept but a thing, Dr. Apelt adds, the assertions "riches are wisdom" and "riches are not wisdom" may both be true at once. What Plato's analysis does not make clear is that in true predication, where the Law of Contradiction applies, negation is more than mere diversity; it is exclusion. Plato occasionally divines that $\tau\omicron\ \epsilon\nu\alpha\rho\rho\iota\omicron\nu$ is not the same as $\tau\omicron\ \xi\tau\epsilon\rho\omicron\nu$, but he cannot, like Aristotle, give a clear account of the difference, because his account of $\mu\eta\ \delta\upsilon\nu$ is primarily based on consideration of "formulae of comparison" which are not genuine predications. Aristotle, implicitly recognising the Kantian principle that all judgment is predication about an object given in experience, dismisses the "formula of comparison" as a $\pi\rho\omicron\tau\alpha\iota\sigma\ \alpha\delta\iota\delta\iota\sigma\tau\omicron\varsigma$. Further it is a consequence of Plato's original error of confusing *apparent* predications, in which the subject is a concept, with real predications that he confuses *qualitative* with *modal* affirmation and negation. That is, he confuses the "is" or "is a" of predication with the "is" of the existential judgment, and consequently also confounds the *qualitative* not-being of predication with the *modal* not-being of the existential proposition. Hence he is the true author of all the attempts of Fichte, Schelling and Hegel to transcend Kant's limitation of knowledge to objects of possible sense-experience.

For my own part, I cannot admit the full justice of these criticisms. To begin with, it seems to me a mere dogma that a proposition without a subject and predicate falls outside the sphere of applicability of the Law of Contradiction. Such a proposition is, of course, not a predication; when I say "riches are not wisdom," "riches" and "wisdom" are not subject and predicate, and *are* is not the "copula". The "are" in this statement means identity. I mean to say that the concept "riches" is not identical with the

¹ Dr. Apelt, I observe, does not see that there is a difference in logical type between propositions of the type "*x* is a *y*," and those of the type "all (some) *x*'s are *y*'s".

concept "wisdom". And it is true, as Dr. Apelt observes, that my statement leaves it an open possibility that in point of fact all rich persons may be wise, or again none of them may be wise, or some may be wise and some not. Yet the assertion has a definite meaning and a definite function.

It is true to say that "riches" and "wisdom" are not one and the same concept, and it would be false to say that they are. Every concept is identical with itself, and no concept is identical with any other, and it is often important to be aware of this. Thus "riches are the same as wisdom" and "riches are not the same as wisdom" do stand in contradictory opposition, just as "Saul is Paul" and "Saul is not Paul" do. Both pairs of statements are in fact *singular* enunciations. Moreover, though any one is, of course, at liberty to define a "judgment" as a predication he must, if he does so, recognise that "judgments" are not the only assertions which can be definitely true or false. Most of the propositions of the mathematical sciences will, in fact, not be "judgments," if we adopt the proposed terminology, since they consist of terms related not as subject and predicate, but by such relations as equality, inequality (whether further determined in sense or not). So no proposition expressed by an ordinary transitive verb with grammatical subject and object will be a "judgment". It is obvious, *e.g.*, to common sense that when I say "David loves Jonathan," the real terms of the assertion are "David" and "Jonathan," and that the *copula* indicating the mode of their relation is "loves". Logically this proposition is prior to that which Aristotelian logic substitutes for it, *viz.*, "David is a lover of Jonathan".

I doubt again whether Dr. Apelt has any right to his theory that Aristotle's refusal to admit "indefinite" propositions has special reference to the alleged distinction between "formulae of comparison" and true "judgments". As the examples quoted by Dr. Apelt himself go to prove, Aristotle means by *ἀδιόριστοι προτάσεις* simply propositions which are not fully quantified, and are therefore ambiguous. *E.g.*, "men are white," one of Aristotle's own examples, is emphatically *not* a "formula of comparison" with concepts for its terms. It has a subject which is a "possible object of sense-experience," and is definitively predicative in form. Its fault is merely the ambiguity arising from absence of the mark of quantity. On the other hand, the "formula of comparison" in which "is" stands for "is identical with" does *not* suffer from *this* ambiguity as it is always strictly singular. *E.g.*, "riches are not wisdom" would be in Aristotelian Greek *οὐκ ἔστι τὸ πλουσίῳ εἶναι τὸ σοφῶ εἶναι*, a proposition of a type familiar enough in Aristotle's philosophy.

Further I submit that Dr. Apelt's view that there is an unbridgeable gulf between the predication and the existential proposition (which he seems to confuse with the assertion of an identity), is hardly consistent with the fact that every predication can be

thrown into the existential form, as is actually done, in various ways, in the different symbolisms of exact logic. Thus "all x 's are y 's" readily becomes "there is no such thing as an x which is not a y ," or again: "The class of x 's which are not y 's does not exist," and so forth. Hence I suspect that Dr. Apelt's anxiety to expose the errors of the would-be improvers on Kant has led him to charge Plato with faults which he does not really exhibit. It may still be said that Plato does not fully follow up the consequences of his own admission that τὸ ἐναιτίον is not identical with τὸ ἕτερον. But, after all, it was hardly necessary for his purpose that he should do so. If what Dr. Apelt calls a "formula of comparison" can be significantly contradicted, as I think it clearly can, this of itself shows that falsehood and significant denial are both possible, and for the purposes of the *Sophistes*, it is enough to have proved so much.

Space fails me to speak of many other points of interest which I would gladly dwell on. I am delighted by Dr. Apelt's highly ingenious defence of the genuineness of the *Ion* and the *Greater Hippias*. His suggestion that the object of the latter is to remove misconceptions which the *Lesser Hippias* might have put into slow-witted heads as to the moral earnestness of Socrates and his followers is, at least, well worthy of consideration.

There are a number of passages where Dr. Apelt's exegesis seems to me odd, and occasionally I think he makes curious mistakes about the grammatical sense of simple words. Thus I do not think he need have given so much of his essay on "The Value of Life" up to a laboured proof that the comparison in the *Laws* of men with puppets, whose strings are worked by God, does not indicate a pessimistic view of life. It is our most optimistic of modern English poets who says in the last lines of his most optimistic work: "All service ranks alike with God, *Whose puppets are we*". So again it is the same thought which Shakespeare expresses in the far from pessimistic phrase about the "divinity that shapes our ends". I do not see why Dr. Apelt should think it necessary to emend Plato's own explanation that he does not mean to belittle man's life by the comparison, but is only speaking πρὸς τὸν θεὸν ἀπιδὼν καὶ παθὼν (804 B.) by changing παθὼν to ποθὼν. Stallbaum's explanation that παθὼν = ἐπὶ τοῦτον παθὼν seems much more reasonable; thus the sense will be "I spoke with an emotion caused by a comparison (*cf.* the use of ἀποβλέπειν in *Rep.*, 501 b, 1.) of God with man": still less can I understand how any man of Dr. Apelt's intelligence can suggest that the development of the notion of philosophy as a μελέτη θανάτου in the *Phaedo* is an "artige Mystifikation". Plato is indeed no pessimist, but that does not prevent him from holding that the life of a φιλόσοφος in a badly-governed city which has made no provision, as the city of the *Republic* does, for his education in "true music" from his earliest years may demand both retirement from the world and mortification of the affections and lusts. Besides, the passage is

highly dramatic. The treatment of Socrates and Chaerephon by Aristophanes is surely enough to show that the leading personages of the *Phaedo* did set a higher value on the ascetic life than perhaps Plato did, even in the mood in which he wrote the dialogue. He professes simply to tell us how they thought and talked ; there is no need to suppose either that he shared all their views, or that he stooped to use the death-bed of Socrates as an opportunity for mystifications which, in the circumstances, would be anything but "artig". So again among many other strange things contained in the essay on Plato's humour, I find it exceedingly odd that we should be required to understand the famous passage, *Laws*, 896, as a joke, on pain of otherwise having to credit Plato with belief in a Manichæan devil. The plain sense of the passage, usually missed by the exponents of Plato, is simply that since there is undeniably evil and disorder in the world, and since soul is the only source of all processes, there must be at least one soul or mind in the Universe which is not God. For God produces only order and good. There must then be at least one more or less bad soul, and, as Plato says, there may be any number. Since bad men exist, it is clear that the argument does not imply the existence of the Devil, or even of devils in the plural. So long as you admit that there is at any rate one sinful being, Plato's conditions are satisfied.

I am equally puzzled by the severity of some of Dr. Apelt's strictures on the *Republic*. He complains that the philosopher-kings and their soldiery are allowed to use the mass of the citizens as a "milch cow" and that both classes have really next to nothing in the way of public service to perform. Surely he forgets that they are not allowed to milk the cow to any great extent, as they are required to live in perpetual garrison, receiving nothing but their daily bread and their clothing. And there would be little opportunity for idleness. The mere application of the Platonic principles to the arrangement of marriage, with the minute personal study of the physical and moral history of the persons to be mated which they imply, would of itself provide a fair number of philosopher-kings with the work of a life-time. And the *ἐπίκουροι*, being required to act as the executive of the community, would have all the direction and control which, even in the best of States, demands a permanent police force put into their hands. Plato himself never loses sight of this. His assumption is that the burden of office is to be so great that a good man will only take it up because he dare not entrust it to less competent hands, and far from intending, as Dr. Apelt suggests, that his kings shall be leisured mathematicians and astronomers with a State endowment, he expressly insists that for the best years of their lives they must be forced to "descend once more into the cave" and busy themselves with the heavy task of administration. Perhaps Dr. Apelt thinks that the ideal city, once set going, will run of itself. The author of the *Republic* was of another opinion.

A. E. TAYLOR.

Development and Purpose: An Essay towards a Philosophy of Evolution. By L. T. HOBHOUSE, Martin White Professor of Sociology in the University of London. London: Macmillan, 1913. Pp. xxix, 383. Price 10s. net.

IN an exceedingly valuable Introduction, Prof. Hobhouse explains the genesis of the present work. Sympathising in the beginning with Herbert Spencer's view of the relation between Philosophy and Science, and with the Positivist attitude to "Humanity," and distrusting the "spiritual" philosophy of Green and Caird, he has been led by a prolonged study of evolutionary phenomena to a doctrine of necessary progress, as determined by the development of mind, and not by the struggle for existence. This position he has completed, in the present work, by a theory of first principles, corroborating his empirical conclusions.

Thus Book i., "The Lines of Development," is in the main a survey of empirical fact, leading up to Book ii., "The Conditions of Development," which is in the main an abstract argument.

The watchword of the whole treatise is "conditioned purpose". The watchword of the earlier part, which traces the *de facto* triumph of purpose over its conditions, is "correlation". The power to correlate is the measure of the emerging intelligence. As mental correlation progresses, in the struggle for existence, but not created by it, conditions, which at first operated darkly below the surface upon the purposive mind, are gradually brought within it as influences which it learns to discount and to control. And in proportion to the correlation of stimulus with response, of thing with thing, of universal connexion with universal connexion, the initial conditioned purpose advances towards supreme control over its conditions.

For the author the climax of this triumph is attained by the social mind in its larger unities, and ultimately, we are to expect, in the mind of organised humanity. The whole movement of our terrestrial world will one day take its direction, no longer from natural circumstance and isolated effort, but from the purpose of comprehensive and triumphant mind. We are shown the conception of harmonious development becoming *pari passu* the basis of social action, of ethics, and of religion, which will presuppose the moral indifference of Nature, and find in justice, the right relation of man to man, the highest spiritual achievement.

When we turn to Book ii. we are confronted with the question how far the nature of reality supports the doctrine of progress which empirical observation has suggested. The general treatment of the validity of knowledge proceeds on the lines of what has been called the "coherence theory," strictly repudiating any approach to psychological idealism. It is noteworthy that even this logical problem is dominated for the author by the conception of progress rather than that of finality. Validity means that knowledge will

continue to grow, consistently with itself. I find no distinct pronouncement on the special topics of modern Realism, though a decided stand, which I welcome, is taken against irrationalism.

In considering the probable future of the human world, a favourable prospect of which is necessary, I think, to his doctrine, Prof. Hobhouse is naturally led to a criticism of such arguments as those drawn from the dissipation of energy, which point in another direction. He is probably playing with us in some extreme suggestions as to the possibility of human control over external nature. Yet they illustrate a necessity of his contention, and remind one a little of Fourier. Might we not, he asks, succeed in controlling the movements of this planet, or in migrating, at our utmost need, to another? Even to glance in this direction is perhaps to pay too highly for our attachment to the interests of a single race. It is the Positivist strain in Prof. Hobhouse. But we shall see that Humanity is not his last word.

We must now turn to the abstract argument contained mainly in the last three chapters of Book ii., on which there falls the principal emphasis of the work, considered as a philosophical inquiry. If I have rightly judged his attitude, Prof. Hobhouse would accept this estimate of its importance.

I will try to state it, without interruption by criticism, as focussing the author's essential contention; and will then make a note of the one or two difficulties which occur to me.

The real world is now in discord, but will one day be in a harmony, which must then persist. This applies both to man, along with his earth, and to ultimate reality, the structure of which is analogous to that of finite mind and its environment.

The ground of this doctrine is that reality includes two principles, the one mechanical, the other purposive. A purpose is a cause conditioned in its operation by its own tendency to a result; *i.e.*, it, the purpose or purposive cause, occurs when and where it occurs, not because of itself, but because of its result. The actuality of such causes the author considers himself to have demonstrated in his account of biological evolution. Now the purposive principle, identified on the whole with mind,¹ which is, however, not to be hypostasised as against body, gradually absorbs and re-moulds into itself the mechanical side of things, which in the beginning was the external and obstructive condition of purpose, discordant with it, though not disorderly in the sense of lacking determinate configuration. The purposive mind, as it gradually becomes aware of the mechanical conditions which operate at first behind its back, acquires power to control them. So that finally it comes to be all in all, and its development to be entirely in its own hands. The world ceases to be a mechanical configuration, and becomes a har-

¹ Whether there is something psychical involved in all organic determination of the existence of causes by their results is, I think, left open. But the author leans to such a view.

mony of self-developing unit-processes, each supporting all and conversely. Now with certain assumptions, *viz.*, the law of universal causation; the two forms of causation, one mechanical from antecedents, the other teleological for the sake of result; the principle, taken as the basis of Induction, that "variable" relations can only be explained by reduction to "as such" relations; and the very important proposition that harmony does not at present exist (and therefore, according to the argument, can never have existed)—with these assumptions the author undertakes, as I understand, to demonstrate the above doctrine.

The conclusion to be justified is the existence of a real order, discordant as judged by purpose, and yet bound, in a temporal future, to conform to purpose. The proof depends primarily on the principle of reducing "variable" to "as such" relations.

When the existing relations of parts and whole conform to their character as such, then there is the condition above referred to as harmony. That is to say, every part necessitates and sustains the whole and every other part in their respective self-maintenances, which may be self-developments.¹ Such a harmony is indestructible. But in variable relations—the AB's and AD's which we constantly experience—we find collocations of terms not corresponding to any set of conditions co-existent and convertible with them, and therefore not, as given, reducible to "as such" relations. It is the same thing if you look at their antecedents. These are no more self-explaining than the collocations themselves, and you could only reduce the latter to "as such" relations if you could trace them back to a set of factors whose combination is due to their intrinsic character.

Now when the required reduction cannot be made by help of co-existent terms, it only remains to make it either by looking back to the past or by looking forward to the future. But the past can afford no scheme of intrinsic harmony. For it is laid down that there is no harmony, and therefore there has never been one. It follows that the existing state of discord is only explicable by dependence on the future. It is what it is, not as *per se* harmonious, but as the material out of which a future harmony is to be made.

Thus in the universe, and in our proximate world alike, you have not a harmonious reality, but a real order (*i.e.*, something determinate), dependent on a future harmonious reality. The dependence consists in the relation that all the existent real, including the mechanical aspect of things, is necessary to the future production of the harmony which will absorb it. The variable collocations which we experience are in this way and no other reducible to relations determined by the real nature of things. The former occur, when and where they occur, not for their own sake, but for the sake of that harmonious expression of intrinsic relations into which they will one day be moulded. I do not know whether the affinity

¹ So that harmony does not, like Spencer's equilibrium, imply death.

of this doctrine to some forms of orthodoxy has been observed by the author.

Ultimate reality, as I said above, is analogous in its structure to our world. There is a central mind, assumed as correlative to the larger purposes of the universe, and related to the mechanical order in general as a conditioned purpose, as is the human mind in its degree. This mind, therefore, is not an absolute, nor the whole reality. It is the author's leading conviction that if the whole were spiritual, nothing would be spiritual.

I gather, then, that even in ultimate reality there must be actual temporal progress *ad infinitum*. There is a sense in which Time is not in Reality, but Reality is in Time, but I can hardly suppose this to mean that the purposive realisation completes itself and ceases to grow (see p. 351).

I will mention one or two difficulties which occur to me :—

(1) The mechanical and purposive principles end up (I mean in the argument) more at one, I think, than they began. If they were *bond fide* antagonistic, must there not be a dualism, which the author strongly repudiates, and must not the final triumph be uncertain? Is not the mechanical principle rather a contribution to the purpose than a condition external to it? Is not, after all, the whole of reality spiritual?

(2) The exclusive importance attached to the future is difficult to me; both in the biological and in the abstract arguments. It is well, no doubt, for a tadpole, being what he is, to develop into a frog. But the end is relative surely to the beginning, and even as a tadpole he has an independent right to be, and the future "end" is for his sake and determined by him, no less than he is for its sake and determined by it. So with the child and the man. Has the end any prerogative of value against the beginning? and is not each alike for the sake of, and determined by, the other?

And so as to the present being inexplicable except by the future. No present, I presume, can be explained without remainder out of coexistents; so that, to its understanding, both past and future are essential. But is not this true of *every* present; and, if so, must not all future presents equally appear inharmonious if considered apart from the whole which extends beyond them? Is it not the whole which explains every appearance, rather than the future the present?

(3) The relation of finite or human mind to reality perplexes me. Not ceasing to be finite, it remains on one side a part of nature, and can never be complete in its own right. And more, must it not always depend on nature for the stimuli of its advance? and if it could in truth gather all conditions within it, would not its progression, far from being self-directed, lack all occasion and aim? Deeper and subtler responses from nature and from itself—for itself, at anyrate, as containing the potency of all reality, it can never exhaust nor control—are surely what both the theory and

the experience of evolution lead us to expect for the developing mind.¹ The purposes of the world, as Prof. Hobhouse reminds us, transcend those known to the human mind; though the central mind, their correlative, is for him also finite.

(4) The author meant, I imagine, to supply a direct and positive principle of evil, in the mechanical system which obstructs the purposive mind. "Idealist" explanations—those, I presume, which depend on finiteness—he wholly repudiates. But we have seen how the positive obstructions to good tend after all to become conditions which good alone can explain, and, moreover, which enter into its substance. Yet, these as the ethical ideal demands, are actually to be overcome and absorbed by the triumph of a mind which still remains part of nature. Some of us are sure to feel that such a principle of evil is too external and transitory, and is therefore too easily, and therefore again too imperfectly, exorcised. The ethical idea, claiming as it does the triumph of the finite as finite, seems to forbid any penetration into the essence of religion.

These difficulties are rooted perhaps in the prejudices of a different way of thinking. Certainly I have learned much from the book with its comprehensive survey of fact, and I also understand that its indomitable demand for actual terrestrial progress—its Positivist strain—is something which requires from philosophy the fullest sympathy and most careful interpretation.

BERNARD BOSANQUET.

The Mechanistic Conception of Life. Biological Essays. By JACQUES LOEB, M.D., Ph.D., Sc.D. University of Chicago Press. 1912.

PROF. LOEB is well known for researches of great scientific value carried out with admirable ingenuity, patience and care. In a recent address (1911) on the *Mechanistic Conception of Life*, which gives a covering title to this collection of biological essays, he has summarised the results of his investigations and set forth the doctrine he founds thereon. "It is not possible," he admits, "to prove in a short address that all life phenomena will yield to a physico-chemical analysis." But the establishment of this conception of life is the goal of his endeavour. Much, no doubt, turns on the question: What exactly is meant by saying that all life phenomena will yield to physico-chemical analysis? There is, however, a prior question: What is included under the head of life phenomena? Are mental processes to be included? Unques-

¹ The author's own instance, the fall of the birth rate, is a good case of a response which may take us utterly by surprise. We may expect reactions that cut deeper, as we get deeper into reality.

tionably they are. "The contents of life," we are told—or, one may suppose, more accurately *among* the contents of life—"are wishes and hopes, efforts and struggles, and unfortunately also disappointments and suffering." It is clear, therefore, that life includes conscious experience. Is then this inner life amenable to physico-chemical analysis? "In spite of the gulf which separates us to-day from such an aim, I believe," says Prof. Loeb, "that it is attainable." Tropisms furnish the clue. "Our wishes and hopes, disappointments and sufferings have their source in instincts which are comparable to the light instinct of heliotropic animals. The need of and the struggle for food, the sexual instinct with its poetry and chain of consequences, the maternal instincts with the felicity and the suffering caused by them, the instinct of workmanship, and some other instincts are the roots from which our inner life develops. For some of these the chemical basis is at least sufficiently indicated to arouse the hope that their analysis from the mechanistic point of view is only a question of time. . . . Not only is the mechanistic conception of life compatible with ethics: it seems the only conception of life which can lead to an understanding of the source of ethics."

Prof. Loeb himself admits that we are still far from the complete attainment of this ideal of physico-chemical explanation. Let us glance at an example of its attainment in such measure as to afford a basis for his confident hope. Such an example is found in the compulsory movements of aphids under the influence of light. Two factors govern the progressive movements of the insects under these conditions; one is the symmetrical structure of the insect, and the second is the photo-chemical action of light. Given an organism with bilaterally symmetrical structure and chemical constitution, differential incidence of light will give rise to differential metabolism in the photo-chemical substances on the two sides—say in the eyes. The physico-chemical changes thus initiated influence differentially the muscle-systems on each side, through connecting channels in the central nervous system. Consequently the development of energy in the symmetrical muscle-systems of the two sides of the body is unequal. The motor mechanism on the one side being thus more powerfully energised than that on the other side brings the aphid round until the photo-chemical action of the light on the two eyes is no longer different. The metabolism on each side of the insect's body is the same in amount and symmetrically distributed, the motor mechanisms of the two sides are equally and similarly energised, and the aphid goes ahead lightwards. Such in brief is the scheme of physico-chemical explanation. "In this instance," says Prof. Loeb, "the light is the 'will' of the animal which determines the direction of its movement." One would have supposed that the physico-chemical constitution of the organism was, on this scheme, the basis of the "will," the incidence of light being a condition of these mechanical

changes at the time of response, "which the metaphysician would classify under the term of animal will". But that is not the way in which Prof. Loeb puts it.

Now, first, let us gladly acknowledge, and that in no niggardly spirit, the great value of the facts which Prof. Loeb has observed in the course of his varied studies in the field of tropisms. Such facts are the stepping-stones of scientific progress and their discoverer deserves and should receive our grateful thanks. Secondly, let us freely admit, not only that the effects of light on the retinal receptors, or on less differentiated structures, involve physico-chemical processes, but also, as a justifiable working hypothesis, that all organic changes, say in nerve or muscle, are correlated with metabolic processes and redistribution of energy. The essential question, then, is, not whether physico-chemical changes are present presumably throughout the whole range of biological phenomena, but whether, in the existing state of scientific knowledge, they, and they alone, suffice for the interpretation of all the facts. We should endeavour, in dealing with a scientific work, to discuss the problems it raises on strictly scientific lines. Now presumably, in the aphid, the flexions and extensions which conspire in the movements of the limbs involve integrative action of no little complexity. Is this entirely explicable without remainder on the principles of chemistry and physics? Some of us, who try to interpret phenomena in accordance with the best traditions of scientific method, think not. There seem to be certain specific changes in the living organism which we feel bound to distinguish as specifically organic in their nature. And among these is the integrative action of the nervous system which we conceive to be a factor in the "light instinct" of aphids. No doubt Prof. Loeb will remind us that in the heliotropism of protozoa and of plants nerve-centre integration is excluded; he will remind us that recent researches on hormones have shown that there are modes of integration other than nervous; he will press his view that nerve-centre integration is at bottom nothing more than differential conduction of physico-chemical changes; he will remind us that a condition of the exact nature of muscular contraction is the chemical constitution of the fluid in which the muscle-fibres are bathed. But if all this be borne in mind, can we honestly say that the complex integration involved in the walking of an aphid lightwards—all that intervenes between differential stimulation and differential response in co-ordinated motor activity—is adequately explained, that is to say, explained without remainder, on the generally accepted principles of chemistry and physics? In the present state of knowledge, whatever the future may hold in store, do we not need a biological category of natural phenomena as well as a physico-chemical category, fully as we may be prepared to believe that all biological processes are correlated with metabolic changes?

And apart from the integration involved in the motor activity of the aphid, how comes that symmetrical structure on which heliotropism in the organism depends? Granted that every stage in the development of the ovum and in the formation of the tissues of the insect is strictly correlated with physico-chemical changes, do the known laws of chemistry and physics enable us fully to interpret all the phenomena of development? It may be said: If a physico-chemical basis can be proved, what more is required for scientific explanation? Surely a good deal more. It has to be shown that there is no other mode of relatedness among the constituent parts of the organism than a physico-chemical relatedness among its molecules and atoms. Some of us who try to face the facts in what we regard as a scientific spirit, feel bound in the light of these facts to place the phenomena of development in the category of natural processes which, to-day at any rate, require the distinctive label "biological". Mendelian heredity may well, we think, involve correlated physical and chemical changes; but to say that the known laws of chemistry and physics suffice to explain all the observed facts of heredity and development seems to us to go a good deal further than is justifiable in the present state of things. On what we believe therefore to be the firm basis of scientific sanity we distinguish certain processes as involving a category of biological relatedness, without for one moment presuming to deny that there are correlated physico-chemical changes.

Is it possible, Prof. Loeb may exclaim, that one who writes thus can have read, even with the superficial glance of a reviewer, the evidence adduced in favour of artificial parthenogenesis? Well! What are the facts? Normally a spermatozoon enters a matured ovum. Apart from being the bearer of hereditary unit characters (*ex hypothesi* physico-chemically determined) Prof. Loeb believes that it plays a double chemical role in virtue of its being also the bearer of two specific physico-chemical substances. By means of the one it induces the formation of a fertilisation membrane through the cytolysis of the cortical layer of the ovum; by means of the other it starts the process of cell-division in the residual portion of the ovum, from which the fertilisation membrane has been separated off. Now both these conditioning chemical effects can be produced by appropriate laboratory substitutes for the substances the presence of which in the living spermatozoon is a matter of quite probable inference. Hence artificial parthenogenesis can be carried out in the laboratory. Here again the observed facts are of great interest and value. But here again the question arises: Granted that chemically induced cytolysis, giving rise to the fertilisation membrane, is a necessary condition to development; granted that further physico-chemical changes must be initiated in the ovum before normal cell-division proceeds on its course; granted further that developmental cell-division and cell-differentiation are throughout their whole course and at every stage cor-

related with metabolic changes and redistributions of energy; does this prove that the mode of relatedness which we term physico-chemical is the only mode of relatedness that is open to scientific investigation in biology, and that it suffices for the interpretation of all the observed facts? Are those who believe that, in the present state of knowledge, science must recognise a further mode of specific relatedness, termed organic or biological, to be regarded as untrue to the principles of scientific thought? It seems to some of us preposterous to assert that physico-chemical relatedness (even supposing it to be ubiquitous) is the one and only mode of relatedness which is open to scientific investigation in the study of organic phenomena. Prof. Loeb seems to say in effect: If there is this physico-chemical relatedness then there cannot also be that biological mode of relatedness; and he apparently supposes that those who are unable to accept his full doctrine must say in their turn: If there is this biological relatedness there cannot also be at the same time that physico-chemical relatedness. But why not both? The modes of relatedness in this world are pretty various. Why attempt to reduce all modes to one?

But even if it be granted that the victorious advance of the mechanistic conception of life, *sensu stricto*, may eventually force us to admit that mitosis, embryological development, the integrative action of the nervous system, and the phenomena grouped under the term heredity, are not only correlated with physico-chemical processes, but are adequately covered by the laws and formulas of chemistry and physics—even if this be granted, is there any likelihood, so far as the present scientific outlook enables us to form an unprejudiced opinion, that the specific mode of relatedness we call cognitive (stripped, if we can so strip it, of all metaphysical implications) will also be adequately covered by such laws and formulas? When Prof. Loeb bids us "bear in mind that 'ideas' can act, much as acids do for the heliotropism of certain animals, namely, to increase the sensitiveness to certain stimuli, and thus can lead to tropism-like movements and actions directed towards a goal"—can we seriously regard such a statement as on the same scientific plane as his statements with respect to the chemical conditions under which a fertilisation membrane is formed? In the interest of the latter statements we trust not. What does the former statement mean? Does it mean that in a given physico-chemical configuration an "idea" may be substituted for an acid, in much the same way as a solution containing butyric acid may be substituted for the chemical substance in a living spermatozoon? That perhaps is too crude an interpretation of his meaning. Indeed elsewhere Prof. Loeb speaks of an "idea" as "a process which can cause chemical changes in the body". But a process which can cause chemical changes must, on his view, be itself a physico-chemical process. In either case there is an identification of the mental and the physico-chemical. As a matter of sober

scientific interpretation (and with such an interpretation only we are here and now concerned) can we go further than the working hypothesis that the "idea," as such, is *correlated with* certain metabolic changes in the cortex of the brain or elsewhere? Now granted that the enjoyment of a full rich red is correlated with some four hundred billion vibrations per second in a particular part of a spectrum thrown upon a screen, in what scientific sense can we identify the one with the other? We shall perhaps be told that the identification is reached through the principle of causation; that the enjoyment of red is caused by certain cortical processes which, through a series of intervening causal links, are caused by ætherial vibrations; and that, as every one knows, the effect must be identical with its cause—or at least of identical nature with its cause. If so we confidently reply that what every one is supposed to know is not a scientific truth but a philosophical assumption of very questionable validity. If, as we believe, this assumption is false, the foundations of a mechanistic conception of life are undermined. For throughout the whole treatment there underlies the tacit assumption that, if the so-called causes are physico-chemical, all the effects must be of like nature.

C. LLOYD MORGAN.

The Value and Destiny of the Individual. The Gifford Lectures for 1912, delivered in Edinburgh University by B. BOSANQUET, LL.D., D.C.L., Fellow of the British Academy.

It is not often that one has to review a book in which as here we have the concentration of the ideas of the writer's life-time upon the greatest problems. In this case, while it confers a privilege it also creates a difficulty, seeing that the philosophical grounds for the conclusions arrived at are, in the main, to be sought for in previous writings and more particularly in the previous volume recently reviewed in *MIND*.¹ Under these circumstances, the occasion might seem more suited for some general estimate of the writer's philosophy as a whole, or, if this is out of the question in the space allotted, for a short *resumé* of the conclusions themselves and an acknowledgment of the gratitude that the whole philosophic world must feel for so frank and fearless a statement of them. What I have attempted is, I fear, neither of these but a compromise between them.

Taking the present volume along with its predecessor, we may say at once that together they mark a contribution to English Idealism that takes its rank along with Green's *Prolegomena* and Bradley's *Appearance and Reality*. What gives the argument they contain

¹ *The Principle of Individuality and Value*, *Mind* N.S. 83.

its own particular significance is that it is developed in view of the criticisms that have been recently urged from the two opposite points of voluntarism or 'personal idealism' and realism against the leading doctrines of these classics. It would not be true to say that there is any new departure. What is true is that under the pressure of that criticism idealism has here been forced to come to a clearer understanding as to what it really means on several fundamental points. While, therefore, these books contain a challenge to the opponent of idealism which he will find it difficult to meet on the old ground, they offer more sympathetic readers an opportunity of noting what may be called the growing points of idealist doctrine. I may say at once that, to my own mind, the question is not so much whether the author is right in insisting upon these points as whether he has made the fullest use of the premises as he has re-stated them.

There can be no doubt as to where we are to look for the central point, though the author's modesty, perhaps too a pious fear of "laying hands on his father Parmenides," has somewhat obscured it. The main difficulty both with supporters and opponents for the last quarter of a century has been caused by Mr. Bradley's use of the principle of contradiction. I do not think that Mr. Bradley is wholly responsible for the confusion, but there are undoubtedly passages in his writings where the distinction (fundamental in Hegel) between contradiction and negation has been overlooked, with the consequence that the reality of the finite has been endangered and self-consciousness itself has tended to be represented as a defect instead of as the key to the universe. The aim of chapter vi. of the *Principle of Individuality and Value* was to make this crucial distinction clear¹. The argument is probably familiar to the reader, but its significance seems to have been overlooked by some reviewers of the book. To have seen the importance of the distinction, and to have burnt it into the page, seems to me to mark a definite achievement in recent philosophy. Two things at once follow: first, while the finite can only have its being returned to it in so far as it transcends itself, this transcendence is itself a part of the infinite, and ministers to its perfection; and secondly, whatever we are to say as to the character of the world as a whole, self-consciousness is not to be set aside as a defect in virtue of the element of difference or negation, which is an essential part of it. The main interest in the volume before us is the application which the writer makes of these conclusions in the Third and final Part to define the nature of God, the grounds of individual survival, and the value of civilisation, which he calls, somewhat enigmatically, the "negative condition" of the true life of the soul. But there are certain preliminary points in the first two Parts which are of peculiar interest in face of current controversy and call for notice.

¹ See p. 247 ff.

Treating, in the first Part, of "the moulding of souls," the writer is prepared to assert in the strength of his idealism the paradox of the all-sufficingness of natural selection. In his hands, this means that the principle that is operative throughout is not a fixed environment conceived (after the manner of naturalism) as first precipitating and then negatively selecting organic centres, but the positive principle of totality or individuality manifesting itself in a series of forms which have the power of representing it in a greater or less degree. All this has been familiar to philosophy since Hegel conceived of the history of the world as the process by which the absolute comes to a consciousness of itself. But it is just this interpretation that recent criticism has challenged on the ground that it reduces individual centres to a mere reproduction of the universal consciousness and excludes initiation. It is vain, so runs the criticism, to refer to the mind's "constitutive" function. In reality the individual mind constitutes nothing, but merely reproduces a given constitution. To meet this difficulty voluntarism appeals to the will as a principle of initiation. But this is just what we want to understand. To initiate is to set something going which reality is prepared to accept, something that falls (we might say) into a place prepared for it, so that once it is there it has the air of being 'inevitable,' and this is just what requires explanation. The value of the section in which all this is dealt with, with its interesting note of autobiography, consists in the re-interpretation of the familiar idealist phrase, "the unity of thought and reality". There is always "more *in* the mind than there is *before* it," and this more is the principle of wholeness which its present contents represent but fail completely to embody. So far from lacking initiative force, this principle is the very spring of endeavour. Apart from it, what assurance could we have anywhere that we had the clue to the world of experience? The writer illustrates from the relation of circumstance to character. From the vantage ground of a fresh interpretation of metaphysical theory he presses the point (familiar to social reformers from his more popular statements of it elsewhere) that the social movement which idealism has largely guided can only be kept true to its promise by rooting itself anew in the conviction that "on the whole and in ultimate doctrine finite facts are powerless against thought and character". This doctrine, which bears a superficial resemblance to the pragmatist doctrine of a world that can be indefinitely moulded to desire, is, as the context shows, the precise opposite. Yet to the reader it is likely to remain a hard saying unless he keeps before his mind the extended meaning which the writer gives to mind and character.

As the first Part is concerned with the true nature and basis of freedom, the second, under the title of the "Hazards and Hardships of Finite Selfhood," has for its underlying aim to establish the grounds of a rational optimism. There is no department in

which recent neo-Kantism has lost its way more hopelessly than in its treatment of pain and evil. It is here we meet with what has come to be known (not without protest) as the theory of a limited God, which more clear-sighted writers, like Dr. Ward, see to mean either a number of Gods or no God at all, without, however, being able to offer a satisfactory way out of the difficulty. Idealism itself has not been without reproach in continuing to treat pain as a minus quantity which requires to be cancelled in the absolute. The first step in the exodus is again to realise what is involved in a true theory of the finite. If finitude is necessary to the perfection of the whole, so also must be the pain which is the sign of the obstruction and contradiction involved in finitude. Again we have a hard saying on which criticism is likely to fix.¹ The writer is able to fortify himself, in the position he here takes, by a brilliant appeal to the ordinary religious consciousness and more particularly to the Religion of the Cross. What we are justified by a sane idealism in asserting is not that pain must cease in the absolute, but *first* that it will be changed as the sense of impenetrability gives way to that of opportunity, and *secondly* that just because pain has a definite place it can never dominate throughout, but must remain a subordinate factor in a triumphant whole.

In the corresponding treatment of evil, I have only space to refer to the series of incisive distinctions on page 197 ff. which runs a line of light through a subject often left obscure even by ethical writers of idealist persuasion, and to the identification of the limits of ordinary theistic philosophy with those of ordinary individualism. As individualism sets us on a vain hunt for a principle of justice in a world of "claim and counterclaim" composed of individuals conceived of in Hegel's phrase as "at arm's length" from each other, so theism searches for a point of view that will 'justify' present unhappiness or imperfect achievement by an endowment of the individual in his own right with future opportunities. The only escape from the latent pessimism of this position is to realise the fallacy or, at any rate, the inadequacy of the whole point of view. The appeal to justice we might say, like divorce, which is a part of it, is permitted because of the hardness of the social heart, but "in the beginning (in principle) it was not so". It is not, however, clear how far the writer would carry the parallel between the legal aspect of society and of religion, nor what the precise relation is of the Theism which he rejects to the god-consciousness which he allows. What, for instance, is the place of the *fear* of the Lord so conspicuous in such types of the religious consciousness as Newman's?

¹ The difficulty which I have no desire to minimise is, I suppose, that granting the distinction between the negative and the contradictory yet is not that which makes the finite a negation just the element of contradiction that it contains?

Leaving this for the moment, it is the last Part, on the "Stability and Security of Finite Selfhood" that the interest of the reader of this volume is likely to centre. Dr. Ward has said¹ that the relation between God and the Absolute is the chief problem of the philosophy of the twentieth century. We have here the first attempt at a systematic answer. It starts from Mr. Bradley's treatment with which it so far agrees that religious consciousness is described as essentially practical. Religion differs from morality not in affirming the reality of the good (all concrete morality does this) but in affirming that it is the only real. Conflict, indeed, remains, but the identification of the individual with the universal will brings assurance of victory. Imaginative representations of this relation between the soul and the universe need correction—this theists have admitted—but the truth remains not as an assertion of the 'existence'² of God but as a recognition of the place of the experience here defined in the process whereby the soul finds itself. We could have wished that the relation between the religious consciousness and the absolute consciousness had been worked out more fully here. For the details we have to go back to Lecture X. of the *Principle* and forward to the condensed statement on page 310 of the present volume. But the point, I think, is clear: the highest experience is to be sought not in the God-consciousness nor again in an unrealisable sense of undifferentiated unity analogous to bare feeling, but in "real awareness of an inclusive world" whose greatness and splendour dominate over its goodness. Here is a critical point, and again we should have welcomed greater detail. Does the sense of greatness enter as a disturbance to the peace and security of religion? This, clearly, is not the writer's meaning. The sense of greatness, on the contrary, is needed, he says, "to widen and sweeten religious consciousness, and forbid its components to harden into mere antagonistic forces," but the critic will press both for principle and detail. I believe that the link is supplied in what has been said in the chapter on "Soul-making". The world truly is a great and splendid, if you will, a terrible place; but to see its splendours and its terrors alike subordinated to the moulding of souls is to see them as factors in a Love which is its greatest splendour. If it be replied that such vision is what we mean or ought to mean by religion, I see no reason why this claim should be disputed. At the level thus reached, it would, I suppose, be a matter of words.

The second "wave" of this Part is the question of the destiny of the Finite Self. Idealism has, in general, fought shy of the problem of individual survival, partly because of its inherent diffi-

¹ *Naturalism and Agnosticism*, vol. ii. fin.

² No reader is likely to quarrel with the uncompromisingness of Dr. Bosanquet's rejections, but there seems no reason why those to whom existence stands as the type of all reality instead of the least of its attributes should not be made welcome to it here.

culty, partly because it has felt that it concerns us in a different way from the reality of religion, to which it must always be secondary. The writer faces it with a full sense of the responsibility to test his conclusions by their bearing upon it. Continuity and permanence are a fundamental need of human nature. How are they to be interpreted? It is clear at once that mere continuance of existence in its present form will not do. This is again an imaginative picture—"an idea," we might say, "in the form of history". Mere continuance would leave us as far from satisfaction as ever. If we were in the heaven we seek, we should not be in the heaven we want. It was an application of this principle when Bradley appealed to the standard of the consistency of our affections. But we are again left with the question of what remains when the inconsistency has been removed. Dr. Bosanquet is pledged to the view that it must be individuality, and, further, that it is the true individuality of content and experience and not the sham individuality of private feeling. The problem is, then, twofold: first to show how, as a matter of fact, the 'exclusive self' of time and place is constantly being transcended, and secondly (a far more difficult task) to show what place we must assign to it in the ultimate result. The section shows the author's resourcefulness at its best, but it would be idle to say that the two questions are treated with equal conclusiveness. We have no difficulty in following the argument that the birth of the body has little or no relation to the birth of the soul, the kindred of the flesh to the kindred of the spirit, or that a personality may be sublimated, as in the case of Dante's Beatrice, into a timeless ideal. But the problem returns of the psychical root, the 'formal identity,' as the writer calls it, which, however differently from current philosophy we may conceive of it, is still admitted to be contained in the substantial self. There are, apparently, two suggestions: One that there need be no limit to the soul's power of constituting out of natural conditions a new centre of experience (so, at any rate, I read p. 259); another that no such reconstitution is necessary but only a rearrangement of the qualities which have emerged as the meaning of the natural conditions (so I understand p. 283). I cannot doubt that the second (if it is really different from the first) is the writer's real meaning, particularly when we take the first in connexion with the passage (on p. 267) where he seems to admit the validity of Aristotle's objection to a series of bodies. I believe that this is right; I would only venture to suggest that the difficulty would have been lightened if the writer had been ready to apply here the admission, which he makes on page 4 as to his treatment of externality in general in *The Principle*, to vital feeling which is the image or psychical equivalent of the body, and had pressed the point that so far as it is an "identity" it is "always for mind and not self-existent". Following the same hint, one might ask whether the order of the two propositions

(on p. 287) in which he sums up his conclusion should not be altered in favour of a positive conclusion as to the survival of the concrete self. In that case the self that survives must be at least a person. But it is just here that the reticence of the older writers finds its justification. The essential thing in the desire for the permanence of personality is the desire for union with the eternal, and any argument that seems to give countenance to the substitution of temporal continuance for this is likely to open the way to misunderstanding on a fundamental point.

The last wave ("The Gates of the Future") gives plainer sailing, albeit it has recently been whipped into something like fury by the pluralist demand for a universe changeable as a whole through the achievement of its members. The problem is to reconcile belief in the value of human effort with belief in perfection. What is at once clear is that any theory starting from a pluralism which excludes the possibility of harmony and of contributing through it to the wealth of reality so far from inspiring effort saps it at the root. "Open gates" may be claimed at too dear a price. But may not absolutism be in a like perplexity from the opposite side if finite effort is simply opposed to perfection as appearance to reality? Perhaps, but this is not now the alternative before us. It is true, in Dr. Bosanquet's view, that the whole can never be realised in time or in the finite being as such. But this does not make his effort to realise it worthless, seeing that the effort is no illusion but a real element in the Whole. On this ground it is possible to accept perfection as real, while admitting that the finite cannot attain it in its own right, and, on the other hand, to accept the actual attainment as real without prejudice to perfection. While, then, a will whose 'ought' or 'is to be' is without assured basis in the real world or (what comes to the same thing) a will which has no real unity of content with other wills, must lack both inspiration and guidance, "There can be no fear that a self identified in will and conviction with the transcendent perfection will be lacking either in the spirit or in the detailed occasions for fuller expression of that which inspires it in the actual modification of its world".

There remains the particular form of the hope of the future. We are pledged to the modification of our world in the direction of increase in the wealth and harmony of our finite life. However peripheral, even "negative" this condition may be, it can never be mere illusion. Nevertheless, taken alone it may serve only to deepen the unhappy consciousness by deepening the sense of self-alienation or again, "give only a false sense of security: the self-satisfaction which is the portal where hope vanishes". To minister to real satisfaction it must be accompanied by an increased insight into values and a conviction of the worthlessness of the finite *per se*. The writer is aware of the pitfalls here, but he risks them in order to press his last point that the spread of this deeper self-recognition

is the one thing needful at the present time, and "the main thing that the future has to bring us".

If we missed a harmonising note in the more formal treatment of the absolute in an earlier chapter, there is no mistaking it here. Love is the typical self-transcendence, "the best, in a sense, the only thing in the world". Common sense recognises this, religion proclaims it. What we require to be reminded of is that it is not to be had for nothing. This Dr. Bosanquet is content to give as "the essence of his argument".

I have tried to bring out in this review the points at which there seems to me to be an advance on previous statements of idealist doctrine on human value and destiny, but no bare mention of these can give any idea of the power and the freshness of the illustrations, particularly in the notes with which the fullness of the author's mind brims over, far less of the impressiveness of the book as a whole.

I have claimed that the line of thought here completed represents a notable contribution to contemporary philosophy. I have not claimed that it leaves no difficulties—even for the most sympathetic reader. I believe, however, that the difficulties are not those that pluralism has urged nor such as are to be met by going back on the main principle of modern idealism, but rather by following further the clue that Prof. Bosanquet's interpretation of it puts into our hands.

J. H. MUIRHEAD.

Essai sur les Fondements de nos Connaissances et sur les Caractères de la Critique Philosophique. Par A. COURNOT. Published by Hachette. Pp. vii, 614.

THE present work is a reprint of a book first published in 1851. It was well worth republishing; for it is not only able in itself but extraordinarily modern in its way of dealing with the philosophical questions that arise on the boundaries of natural and mathematical science. The book consists of one main contention and its application to a great number of different questions. The contention is that beside necessary reasoning as in logic and pure mathematics we must take account of philosophical probability. This is not indeed measurable accurately; but we can note degrees in it, and often it is so great that it produces and ought to produce complete conviction. This philosophical probability is as much as we can expect to get in metaphysics, and it must be our criterion in judging what is objective and what depends on the peculiarities of personal or human nature in the objects that we perceive or think about. To criticise with this criterion in view is the highest function of reason.

But what exactly is meant by philosophical probability? It is closely connected with order, a notion to which Cournot does not indeed attempt to give the rigorous definiteness characteristic of modern philosophers of mathematics, but whose importance he clearly recognises. In nearly all his applications of probability in criticism the line of argument is: This order which we detect might *a priori* be due either to chance or an objective order; but it is almost indefinitely unlikely that the former should be the case. We can easily suppose that a real orderliness shall give rise to the appearance of disorder, but it is almost incredible (though not *logically* impossible) that disorder should constantly present an orderly appearance. By the production of anything 'by chance' Cournot means that the event in question consists of contemporary terms in two or more independent causal series. Suppose then that in any set of experienced objects we want to find what depends on the peculiarities of the experient and what is independent of him, and we discover that the maximum of orderliness is introduced by supposing that a certain part *x* is objective (in the sense of independent of the experient) and that it obeys certain laws; then it is most unlikely that the regularity should really be due to our peculiarities faced by a chaotic world. So we ought to accept that particular apportionment between objection and subjection that introduces the greatest regularity.

Cournot distinguishes appearances, phenomena, and things-in-themselves. And he constantly quotes the distinction between real and apparent motions as an example of advance from knowledge of one to that of the others. Thus the geocentric theory describes appearances, the heliocentric theory gives a true account of phenomena, whilst it does not do so of things in themselves because we do not know if or how the fixed stars are moving. Cournot does not make his distinctions very clear, but I think that his point is that appearances only exist when perceived, and may differ from anything that exists independently of an observer, whilst knowledge of phenomena is nothing but partial (and, so far, correct) knowledge about things in themselves. On this view phenomena and things-in-themselves would be identical as entities, and there is no reason why phenomena should be perceived by any one or why things-in-themselves should not be perceived by some one. If this is his view of the distinction his example is unfortunate, for it is just as true that relative to the earth the planets describe cycloidal curves as that relative to the sun they describe ellipses; and both pieces of information are phenomenal knowledge.

In an interesting chapter on the Senses Cournot applies his general line of argument to the commonly accepted grounds for distinguishing primary and secondary qualities. He considers the deliveries of each sense in turn, and draws a distinction between those that are and those that are not 'representative'. The conclusion is that sight pre-eminently, touch to a less extent, and

hearing to a slight one are representative. These are of course the senses that give us acquaintance with relations—spatial in the case of the first two and numerical in that of the last—and it is in respect of these relations that they give us something which is directly correlated with what exists independently of us. Whilst I agree with Cournot's conclusions I think that in his reasonings he confuses the direct objects of our sense-perception with the physical causes of the latter. Indeed he seems to think that sight *e.g.* is representative because the essential qualities and relations of what we see are correlated with the shape and size of the patch of our retina affected by light. But this surely is to found an argument for the representative character of sight on a physiological theory which already assumes that our senses are representative of spatial relations.

Cournot has a peculiar theory about mathematical reasoning. It is always *a priori*, but Kant was wrong in supposing that it is always synthetic. Algebra apparently is analytic, for any algebraic proof of a geometrical proposition is analytic. Moreover, it is a great advantage of mathematics that all its propositions can be verified experimentally, in spite of the fact that the proofs do not depend on experiment. The same is true of formal logic. I confess I do not see what is the advantage of the mere possibility of experimental illustration: for in these cases it is admittedly nothing more.

In the matter of universals and our knowledge of them Cournot adopts a balanced position. Some are merely the results of our subjective activities directed to some special object; others are actually present in the nature of things. With regard to the latter Cournot is almost as realistic as Meinong, though he does not touch on the question of non-actual Objectives. Surely with regard to the former too we find and do not make. In a very artificial classification the universals under consideration do not indeed stand in relations that are important in the existent world (as *e.g.* do the universals ruminance and cloven-footedness), but still they are there independent of us, and it is only our selection of these rather than of others that is subjective.

Cournot has an interesting discussion on the merits and defects of language and symbolism. Any symbolism necessarily consists of a finite number of discontinuous objects. Now, some things in the world are discontinuous whilst others are not. In representing the former by symbols we can often reach complete accuracy without excessive complication; in representing the latter, exact accuracy is infinitely improbable. Hence such a scheme as Leibniz's Philosophical Language must fail. The only continua that can be accurately represented by symbols are magnitudes, because our notation enables us to approximate as nearly as we choose, and to know the limits within which our error lies. Another inevitable source of difficulty is that symbolism must be read and language

heard in an order in time, whilst what is represented is timeless or in a temporal order that bears no definite relation to that of the discourse.

An application of the general theory is made to Ethics and *Æsthetics* with the object of seeing what is objective in these. Cournot is a strong rationalist. He has little difficulty in disposing of sceptical objections drawn from varieties of moral judgment in different times and places. Moral discoveries are made by persons of moral genius as time goes on. From the fact that these new obligations endure Cournot draws an argument for the objectivity of morality, and its difference from a mere set of rules, for securing what will best satisfy human nature in this world. If morality were only such a set of rules we might expect that all men would gradually approximate to them, and that new obligations felt by individuals would gradually fade away as being aberrations due to their personal eccentricity. This argument is surely inconclusive. In the science of what makes for human happiness there might surely be discoveries to be made, and if the new obligations were just newly discovered laws in this science we might expect them to endure as well as if they are laws of another and higher science.

Cournot devotes two long and rather needless chapters to Jurisprudence, for which he not unreasonably apologises. He has rather a difficult chapter on the relations of history, science, and philosophy. Philosophy can never become a science, and it is important to remember this when people say that philosophy is useless because the same old questions constantly recur. But every science has its philosophic part. It is not at all easy to see the precise distinction that Cournot could draw between the hypothetical part of any science and its philosophy; and it would seem that he forgets that the laws of science are themselves only probable, and are discovered in exactly the same way as he himself philosophises. Perhaps it is fair to say that the philosophy of a science is those unifying and co-ordinating hypotheses which cannot be experimentally verified, but are introduced as ideals out of respect for the order and connexion that reason looks for in the world.

Cournot criticises introspective psychology rather severely on the usual grounds, and concludes by a review of Plato, Aristotle, Descartes, Leibniz and Kant. He is most favourable to the last two; but he blames them all for expecting logical demonstrations where philosophic probability alone is possible.

C. D. BROAD.

VI.—NEW BOOKS.

The Problem of Evil in Plotinus. By B. A. E. FULLER. Cambridge : University Press, 1912. Pp. xx, 336.

THE growing interest in the serious study of the great Greek metaphysicians as philosophers who "count" even for our own times is strikingly evinced by the number of recent works dealing with the thought of Plotinus. Among these recent works, Mr. Fuller's book deserves a respectable place. I do not share his confidence in the ease with which he has proved the moral and religious speculations of so great a man to be incoherent, but I am glad that any fresh work should bring Plotinus and his philosophy before the attention of our "studious youth" even if by way of "refutation". And I readily recognise that with whatever defects in exact scholarship and historical insight Mr. Fuller's statement of Plotinus' position on the ultimate issues is, in the main, clear and fair, and that thanks are especially due to him and the friends whose assistance he acknowledges for the very useful selection of texts from the *Enneads* printed at length in the notes to his book. There is a certain doubleness of aim about his argument which makes criticism difficult. It is manifest that his purpose throughout is not merely to state and examine the teaching of the founder of Neo-Platonism on its own merits, but also to use his opportunity for the purposes of a general assault on modern Monistic theories which assert the perfection of the actual Universe. The consequence of this is that a great deal of his space is taken up with an argument which can hardly be said to be relevant as against the special view of Plotinus or of Platonism generally. The argument, which assumes several different forms, but is in principle the same at bottom, is that to teach the "perfection of the Universe" or the doctrine that evil is unreal leads directly to the denial of the worth of the ethical life. The only sense in which the world is perfect is a purely naturalistic one. Everything is perfect as it is, from the point of view of the whole, as just that expression of the nature of things which it is, and no one thing is, in this sense, more perfect than any other. Christ, for example, is no more perfect in this Spinozistic sense than Judas, since each contributes his special performance to the life of the one whole. But perfection, so understood, is not moral perfection. Hence the believer in moral perfection is bound, so Mr. Fuller seems to hold, to be metaphysically a dualist. Formally, to be sure, this reasoning is not applicable to Plotinus, who, like his master Plato, holds firmly to the view that evil is ineradicable from the actual world. But, it seems to be meant, Plotinus, though he formally asserts only the "goodness," not the "perfection" of the actual, involves himself in a dilemma, partly by his agreement with Plato that evil is strictly "not-being," partly by the fact that in arguing for the thesis "the world is good," he borrows Stoic arguments which had been employed by the Stoics to prove the perfection—in the naturalistic sense—of the world. Now I am not at all clear that, on either of these grounds, Plotinus is really open to the charge of—by implication—relapsing into a merely naturalistic monism. This would be

a fair charge if, for example, the Stoic thought that "partial evil" is "universal good" were the whole or the principal part of his Theodicy. But that view, according to which evil is merely apparent, is, of course, not permissible to a Platonist. Hence it is only as a partial solution of the problem of evil, demonstrably valid for some cases, but quite inadequate in others, that Plotinus admits the justification of seeming evil by a reference to the point of view of the "whole" into his Theodicy. I think Mr. Fuller would have done his author more justice on this head if he had been more alive to the dialectical character of Plotinus's method. Like Aristotle, Plotinus does not usually give his own fullest solution of difficult problems magisterially as soon as he has raised his questions. He proceeds by way of successive "aggressions" or approximations to a solution, usually beginning with one based on previous philosophy and accepting it for the cases which it will fairly cover before he indicates where it breaks down and attempts a newer and profounder answer. This is why he can to a large extent adopt the Stoic formulæ; they do cover numerous cases, since it is genuinely the fact that much in Nature that seems evil on a narrow and contracted view will be found on a wider survey to be positively beneficial. The recurrence to the thought of the standard of the "whole" is thus justifiable as adequate in dealing with much apparent "physical evil". But it does not meet all the cases even of "physical evil," and fails completely in dealing with "moral evil". Plotinus does not, as Mr. Fuller seems to think, simply adopt one theory or another *ad arbitrium*; he works with a "first aggression" as far as it will carry him, and then proceeds methodically to look for a more exact solution, so that his real answer to the question *πότεν τὰ κακά* only emerges at the end of a series of dialectical "aggressions". Nor is it true, again, that the final identification of the source of evil with "not-being" amounts to naturalism. Mr. Fuller seems, by pressing language, to credit both Plato and Plotinus with meaning to identify evil in the end with the non-actual, and urges against them that, except on the purely naturalistic view according to which everything actual is perfect as it stands, and only seems imperfect to us when we judge it by some arbitrary standard of reference of our own, evil ought to have a positive character "opposed to the good". But so much is already admitted by both philosophers, since both hold that evil is actual as much as good. What they mean when they deny its reality is that whereas there is a definite principle of good there is no definite principle of evil. *I.e.*, the better a thing is, the more individual it is, and a "most perfect being," or principle of perfection would be the same as an absolutely complete individual, but, since the source of the imperfection of ourselves and other imperfect things lies precisely in the incompleteness of our individuality, the want of full inner unity in our lives, there can be no individual principle of imperfection or "absolutely imperfect individual". This seems to me to be the simple truth. Put in every-day language what it means is that God is at any rate conceivable, and that God's utter individuality is part of the concept of God (*Deus est suum esse*) but a Manichean devil or evil God is the purest of pseudo-concepts. There are degrees of increasing badness, no less than of increasing goodness, but whereas we can conceive the existence of an upper limit to the series of increasingly good things, we cannot form the concept of a real lower limit, a thing "so bad that nothing can be worse," or "so incoherent that nothing can be more incoherent". Or again, the element of indeterminateness is actual enough as an element in everything but the Highest (this concedes to the moralist all he needs in the way of recognition that evil and sin are positive facts), but nothing actual is purely and utterly indeterminate.

Mr. Fuller has, however, a further argument by which he intends to show *a priori* that any Theodicy which does not assume a fundamental metaphysical Dualism must be fallacious. He argues that you can recognise differences in worth between individuals of the same kind, the standard of worth being the full and complete expression of the *essentia* of the kind. But when you come to assert that there is a similar hierarchy of kinds you commit an illegitimate *process*. One thing may be more perfect in its kind than another, but of two kinds we can only say that they are different. Thus the whole conception of the different kinds of things as forming a series with the *ens realissimum* as its upper limit is illogical. I confess I do not see the force of this contention. May I not admit that one horse is a better specimen of a horse than another, and yet hold that the most perfect horse is of less worth in the scheme of things than the most faulty man? Is it absurd to say that "even the finest of satires is only a specimen of the least truly poetical sort of poetry"? It is at least commonly assumed that such comparisons are possible, and I cannot find any reasons adduced in Mr. Fuller's book to show that the assumption is illegitimate. So far as I can see he takes his central position to be simply "evident by the natural light". This is all the odder because *this* position plainly assumes the existence of "real kinds," whereas a further argument which is meant to drive Plotinus finally into a corner turns upon acceptance of the nominalist view that only the particular is real. Plotinus, says Mr. Fuller quite correctly, holds that there is not only an *εἶδος* of man but *εἶδη* of all the individual men in the Universe. Ergo, he ought to have seen that any given man is at any moment perfect as an expression of his individual *εἶδος* in the mere act of being himself and not some one else. Ergo, in the system of Plotinus there ought to be no room for any ethical or other progress. Now I do not see any force at all in this reasoning. No Platonist would admit that any bare particular, as we find it here and now, is a perfect expression of its *εἶδος*. It is not merely that *e.g.* Socrates here and now is not "the perfect man," he is not even, at any particular moment, "whole and perfect Socrates". There is "more in" Socrates than is expressed by what he is saying or doing at any moment, and the true Platonist would add, more than comes out even in the whole course of his earthly life. And common language is full of phrases which express the same conviction. We speak of a man as being "more truly himself" at some times than at others, we say: "he has put more of himself into this piece of work than into that other," we talk of a life of promise being cut short before the deceased had become "fully himself," and so on. Will Mr. Fuller say that all this language is meaningless, and that human selfhood is bare particularity devoid of any genuinely growing content? Unless he is ready to say this, the very sinew of his syllogism is cut through. In matters of scholarship, I should add, Mr. Fuller is by no means above suspicion. This is a pity, as it lessens the value of his book to students who cannot check his renderings of Plotinus by comparison with the Greek at the foot of the page. Thus *e.g.*, opening the book at random, I find on page 117 the statement that "one must not expect equal performance from unequal beings" (*οὐ γὰρ τὰ ἴσα ἀπαρεῖν δέι τοῖς μὴ τοῖς*) strangely rendered "one cannot make equality from unequal things" (unless "make" is here a printer's error). A worse case is the translation at page 86 of *οὐδὲν γὰρ δεινὸν μὴ ποτε περὶ σώματος προσδοκῇ τοιούτου*, "there is no danger that she (the soul) will be apprehensive for such a body" as "she can never experience fear about a body of this kind". (A very elementary knowledge of Greek should have taught Mr. Fuller what *οὐδὲν δεινὸν μὴ* means.) On the next page a serious error in doctrine is created by the mistaking of *ἔστιν* for a tense of

εἶναι (a blunder which is made in other places as well). Plotinus says that "there is no evil" among the gods and adds *καὶ εἰ ἐν τράτῃ ἔστι, κακὸν οὐδὲν ἂν ἦν*, "if things had stopped there (i.e. if the process of "emanation" had gone no farther) evil would never have existed at all". Mr. Fuller perverts this into the extraordinary sentence: "Had it (sc. evil) been there, it would not be evil". And there are not a few other errors of the same kind. What is perhaps more serious is that Mr. Fuller's reading is not sufficient to enable him to know accurately when Plotinus is simply quoting older thinkers. Thus in the very passage just referred to, Plotinus quotes verbatim the well-known "enigma" of Plato's *Second Epistle* which he, rightly or wrongly, believed with the rest of antiquity to be genuine. Mr. Fuller, apparently not knowing his Plato as he should, gravely tells us (p. 89) that "this is the Aristotelian doctrine, and Plotinus is consciously a good Peripatetic" in referring to it. Finally, I must protest as emphatically as I can against the reiterated rendering of *λόγος* in such phrases as *σπερματικός λόγος*, *ἐνυλὸι λόγοι* by the senseless "reason". The true rendering is simply *law* or *formula*. (E.g. such a formula as H_2SO_4 is exactly an *ἐνυλὸς λόγος*.)

A. E. TAYLOR.

The Philosophical Works of Descartes. By E. S. HALDANE and G. R. T. ROSS. Vol. ii. Cambridge: University Press, 1912. Pp. viii, 380.

The translators have performed a work of real service to philosophy in giving us (I believe for the first time), a complete rendering of the *Objectiones* made against the *Meditations* with Descartes' replies. Dr. Ross appears to be responsible for the whole of the volume except the translation of Descartes' letter of expostulation on the subject of the "seventh objections," addressed to Father Dinet, S.J., Provincial of the Province of Pavia, which is signed by the initials E. S. H. It has long been a defect of English, and even of some popular French, editions of the *Meditations* that criticisms so important as those of Hobbes, Gassendi, and Arnauld, with Descartes' attempts to meet them, have been represented by mere brief summaries, often made without an adequate insight into the precise scope of the objections. Thanks to the industry of the present translators, the English reader can now study contemporary criticism of Descartes' Metaphysics for himself. I own that, had I been executing this work on my own account, I should have been sorely tempted to omit the whole of the stupid and vulgar effusion of Father Bourdin, S.J., which figures as the "seventh objections". Bourdin's work is, as Dr. Ross intimates, absolutely worthless, and Descartes' Notes on it are merely one long protest against being stupidly misunderstood. The suppression of the section would have inflicted no loss on the student of Descartes, and would have provided space for the inclusion of much more valuable matter. However, Bourdin's nonsense has obtained a traditional place in editions of the *Opera Philosophica*, and this may be regarded, perhaps, as an adequate reason for its inclusion in a translation. The full rendering of Gassendi's penetrating criticisms and Descartes' not always satisfactory or ingenuous replies, on the other hand, should by itself make the volume valuable to all students of the "new philosophy".

The translation, as a whole, may be commended as a faithful, though not always an elegant, reproduction of the original. In point of accuracy I should place it far above the previously published first volume of the work. It has also the merit of being made consistently throughout from the Latin text, variants due to the first French version being carefully

noted at the foot of the pages. As is natural in so lengthy a work there are slips here and there, for most of which weariness may be pleaded in excuse, and, owing, no doubt, to difficulties in proof-correction, a number of tiresome typographical errors have been incurred, some of which should never have been passed by the Reader of a University Press so deservedly famous as that of Cambridge. It is in no spirit of depreciation, but with a view to the issuing of a possible list of *Corrigenda* that I proceed to note some of these. Page 4, last sentence but one, there is a misapprehension, probably due to the erratic punctuation of the original. The sentence should run, "It is certain that the hot, if you will concede that there is such a thing, is hot and not cold in virtue of its own internal constitutional principles," etc. Page 12, last line, *haec* *been* is apparently a printer's error for *has been*. Page 24, in the first sentence of the "second objections," a clause has somehow fallen out. At page 27, and again in Descartes' reply on page 42, there is a most unfortunate oversight by which the colloquial phrase "sole clarius," "as plain as daylight" is completely misrendered. On page 51 a strange misconception—apparently—of the meaning of *tenebras offundere* has led to a hardly intelligible rendering of the last sentence of paragraph 1, as well as to a footnote suggesting an "emendation" which, in fact, spoils the grammar of Descartes' phrase. Page 53, line 13, "neither do we have any idea". The word "other" has fallen out. Read "any other idea". The construction shows that this is what Dr. Ross meant to print. Page 61, line , for "this is the mind" read, as is clearly meant, "that is, the mind (exists)," or "that is, I am a mind". Page 67, line 27, *portion* is a printer's error for *position*; with reference to note 2 on page 69 the omission of a necessary *non* in the first edition of the Latin text was a mere printer's error which is corrected in later Elzevir editions (at least in that of 1678 which I have used myself for comparison with the translation). Page 80, line 13, "St. Augustine, a man of . . . such note". Such appears to be a printer's mistake for *much* (Latin, *plane mirandus*). I could wish that at page 121, where reference is made to legends of priests who have actually seen the Corpus Christi in their hands after consecration, Dr. Ross had not made Descartes speak of these tales as history. "History tells us," etc. All that the text says is *memoriae proditum est*, "it has been related". We may be sure that Descartes did not regard such relations as "history," nor, I should suppose, did Arnauld.

Page 125, in the title of Descartes' *Letter to Clerselier, solution* is a vexatious misprint for *selection*.

Page 137, line 8. Something has gone wrong in the rendering of the words *et nihilominus animadvertere saltem te esse*, "and yet that you recognise at least that you exist". I do not know how this comes to appear in the translation as "and fail utterly to notice that you . . . exist". On the next page, in lines 26-27, there is a little awkwardness, apparently due to failure to see that the verbs of the sentence are passive. Page 140, line 10, "the souls of the brutes are incorporeal, *viz.*, those which think," read for the last four words "*inasmuch* as they think" (the usual sense of the relative with a subjunctive).

Page 142, line 8 from below, "give up, I pray you, that extreme distinctness with which you perceive your own nature". Latin, *renuncia, quaeso quam distincte naturam tuam perceperis*, i.e. "report, I pray you, how distinctly you have perceived your own nature". Elsewhere *renuntiare* in its primary sense is rendered quite correctly.

Page 143, line 3 from below. Dr. Ross has got the best sense that can be made out of the sentence as it stands, but I would suggest that in the words *nisi sola incursione fiat*, *nisi* may be a "primitive error" of

Gassendi or his printer for (*non*) *nisi*, the sense being "since knowledge only enters by a sort of invasion, though it is elaborated," etc. I think this more conformable to the known opinions of Gassendi as well as better Latin than the printed text, and the dropping of *non* is a mistake of which there are several instances in the early editions of the *Objections*.

Page 155, line 4, a *not* has been omitted by oversight; read, "those Ideas nevertheless (do not) prove," etc. (*non tamen arguere*).

Page 161, line 6, the words *as long as* should be deleted. What follows, "you decrease the image's reality," is the grammatical and logical consequent in the sentence. The meaning is that on any theory which denies that "ideas" are corporeal effluxes from things, the reality of the idea is of a lower degree than on the corporeal effluence theory of Epicurus—and Gassendi.

Page 190, note 2. No "emendation" is called for. *Sigillatim*, which Descartes almost certainly wrote, is only a very common MSS. misspelling of *singillatim*, not a different word.

Page 195, line 20. "*But, how, O Mind,*" etc. Surely *how* is a printer's mistake for *now*. The sentence also appears not to be meant as a question. Render, as Dr. Ross very possibly wrote, "*But now . . . there is no difficulty*".

Page 197, line "is that why," etc. Read simply, "have you a clear and distinct idea about this?" (*idcirco*, viz., a clear and distinct idea of what it is to be unextended).

Page 200, note 1, the reference should be to Lucretius I., 305.

Page 293, line , "*each enjoys his own sensation*". Rather "his own conviction" (L., *suo sensu abundat*), Gassendi, means that he is content to leave other men to be as partial as they like to their own favourite philosophies, so long as they will leave him to enjoy his own.

Page 233, line 3. "I catch sight of the real Gassendi, and have ground for suspecting that he is a man of great philosophical eminence. Translation, "and look up to him as a man," etc., Dr. Ross forgets that *suspicio* rarely or never means "to suspect," except in the participle.

Page 367, note . The note is unfortunately worded. The Latin for Utrecht is not, of course, *Ultrajectinae* but *Ultrajectum*; *ultrajectinus* is an adjective like *Florentinus* or *Byzantinus*. Moreover the case of the adjective to be supplied in the place of Descartes' asterisks is the genitive singular masculine (*Iudicium sub nomine Senatus Academiici [Ultrajectini] editum*).

It will be seen that the number of necessary emendations I have to submit is not large for a volume of nearly 400 large octavo pages, and that most of them deal with what are obviously typographical errors.

A. E. TAYLOR.

Proceedings of the Aristotelian Society, 1911-1912. Published by Williams & Norgate. Pp. 345.

The *Proceedings* of this society for the past year are somewhat swollen by the presence of two Symposia—one on "The Time Difficulty in Realist Theories of Perception" and the other on "Mechanism and Purpose". In the first of these the question is whether the fact that we 'see a star' by light which it emitted some time before the moment of our perception is compatible with the view that we really become directly aware of the star itself.

Mr. Carr, who opens the discussion, very unnecessarily drags in Einstein and the theory of relativity. He holds that the real question is

'where our perceptions can be'. As he says that on the realist theory they must be where the astronomical star is, he apparently means *percepts* by perceptions. He further holds that the time-interval makes it obvious that they cannot be at the astronomical star but must be in the perceiver. Otherwise they must exist before they are perceived, which he holds to be self-contradictory. But it is certainly not self-contradictory that a percept should exist unperceived, for the realist theory holds that precisely the same things exist sometimes perceived and sometimes unperceived. Nor is it self-contradictory that a perception should exist unperceived; for, except when we deliberately introspect, all our perceptions are in this state. The real point at issue is in fact a very simple one, and deals with time and not directly with space. It is just this: It seems obvious that the existence of an object of direct awareness is contemporary with the existence of the awareness of it. If the usual interpretation of physical theories be right it would be possible to have a perception due to a distant source of light at a finite time after that source had ceased to exist. Hence the object of this perception cannot be identical with the source of light which causes the perception. But naïve realism asserts this identity.

Mr. Carr's solution is based on Bergson, and, in common with the other participants in the Symposium, I am quite unable to follow it. I also subscribe most heartily to Dr. Dawes Hicks' criticisms of Bergson's apparent attempt to identify colours with vibrations. As far as I can see the crux of Mr. Carr's argument consists in the remark: 'If you object that the image no longer exists when you are perceiving it, you are bound to hold that no movement exists because the part accomplished has ceased to be and the part in progress is not yet'. If this be meant as an argument to show that we must assume that the past exists in some sense, I agree that it does: it still exists, but its existence which was present has become past. But this does not answer the question whether there can be a perception of an existent whose existence is not contemporary with that of the perception itself. And this is really the question at issue. If I had to defend naïve realism I should take the line that a present perception can have a past existent for its object and then try to show how it is that we make an erroneous judgment as to their temporal relations.

Prof. Jevons discusses the question on the lines that the star that sends out the light is a concept and that which is seen is a percept. This seems to me to amount to an admission that the difficulty is fatal to naïve realism, for what is perceived is not the concept, whilst it is the concept that the realist wants us to perceive.

The most exciting solution is that of Dr. Dawes Hicks, who holds that in all cases what we perceive is the sun as it is when we receive the light, though the stimulus comes from the sun as it was earlier. If in the meanwhile the sun has been annihilated we do not perceive anything in spite of the arrival of the stimulus from the past sun. I agree with Mr. Carr that this view makes the whole supposition that the past sun had anything to do with the causation of our perception of the present one very arbitrary. Suppose that the sun exploded at a certain moment and that by the time the light sent out just before the explosion reached us pieces of it were widely distributed. Should we see them all in the positions they had reached? If not, how little must the present sun differ from the past one in order that a stimulus from the past one may enable us to see it? And in general, if Dr. Hicks's account be true, I do not see what evidence remains that light has a velocity at all. The usual ground for supposing that it has a velocity is aberration; but I do not see that there would be aberration on Dr. Hick's view—or, rather, some

explanation would be needed for that phenomenon which would cease to make it available as evidence for the finite velocity of light.

Mr. Russell contributes an important paper on "Universals and Particulars". He investigates the question whether we can dispense with universals or with particulars. He shows that at any rate we must assume universal relations on pain of a vicious infinite regress, and then there is no advantage in denying universal qualities. With regard to universals he shows that even in perceptual space there exist relations (like 'inside') which imply diversity in their terms and yet can relate terms that are conceptually identical. Hence you can have numerical difference with conceptual identity, and so you must distinguish between a universal and its particular instances. The paper contains much interesting discussion as to the nature of purely sensible extension as distinct from the intellectually constructed space which synthesises the several sensible spaces, and is as such never directly perceived.

There is a good article by Dr. Nunn on Animism and Energy. He traces the development of the conservation view from pure mechanics to physics and thence to metaphysics. He insists on what seems to me to be the most important point, that it is of no use to save the Conservation of Energy in the interest of mechanics unless you also save the Conservation of Momentum, a thing which all guidance theories *ex hypothesi* fail to do. Dr. Nunn holds that in the physical sense of Conservation all that is needed is that two classes of events, e.g., one defined by the fact that $\frac{1}{2}mv^2 = \kappa$, and another defined by the fact that the heat liberated is constant, shall be capable of correlation. If then we could get classes of mental events which would be correlated in this way with physical classes Conservation would hold even if there were interaction. He thinks that the determining mark of such classes need not be the constance of some quantity, but he does not indicate how we are to form our psychical classes, and so the discussion is somewhat in the air.

In the Symposium on Purpose and Mechanism, Profs. Sorley, Bosanquet and Ward, and Mr. Lindsay took part. It is not possible to summarise such a long discussion, which came to involve the question in what sense purpose can be applied to the whole universe. Profs. Ward and Bosanquet join issue as to whether finite purpose is enough and as to whether there is any genuine mechanism, but neither has persuaded the other. What is curious is how very materialistically some of Prof. Bosanquet's pronouncements read.

There are two papers on Logic, one on Memory and Imagery, a description of Prof. Santayana's *Life of Reason*, and a long paper on 'The Experience of Power' in which Prof. Boyce Gibson introduces us to two French philosophers, Maine de Biran and De Tracy. On the whole, a quite entertaining volume of *Proceedings* of which the Society has no cause to be ashamed.

C. D. BROAD.

The Psychology of Insanity. By BERNARD HART, M.D. Published in Cambridge Science and Literature Series.

In this little book the author gives an account of recent psychological theory of insanity, modified in certain respects by the results of his own experience with the insane. The hypotheses of Freud form the basis of the theory advanced, though it is also indebted to Jung and Trotter, the author criticising freely where the facts seem to require it. An interesting feature of the result is that the consideration of physiological conditions obtaining in insanity is entirely eliminated. Attention is confined

to the "conscious processes" to be found in deranged minds, the aim being to "describe" these "conveniently and comprehensively".

The most general characteristic of the very diverse phenomena which must be subsumed under the term "insanity" is "dissociation of consciousness". By this is meant a "division of the mind into independent fragments, which are not co-ordinated together to attain some common end" (p. 42). Slight dissociation is a frequent occurrence in normal life, as, for example, when one simultaneously plays the piano and worries over an ethical problem. In cases of lunacy the dissociation is frequently manifested as a complete break in the stream of consciousness. An insane person is at one moment a clergyman, at another a shopkeeper, the transition from the one *role* to the other being instantaneous and complete. A more precise definition of dissociation of consciousness is thus reached. "A system of ideas is said to be dissociated when it is divorced from the personality, and when its course and development are exempt from the control of the personality" (p. 52).

"Systems of ideas," briefly termed "complexes," are then considered. A "complex" has an emotional tone and tends to produce a definite kind of action. Each complex is a centre of "force". When complexes "conflict" a variety of results may follow, a particular result being dependent on the character and strength of the complexes involved. Sometimes an individual countenances a complex which conflicts with his personality by "glossing" or "rationalising" its precise import. In the case of the logically minded or morally sensitive, or again when the conflicting complex is of considerable extent, "rationalisation" is impossible. The complex is then "repressed". The author's thesis is that no complex is ever literally annihilated; and that, if of sufficient strength, it frequently rises and takes complete control of consciousness. Hence are to be explained such phenomena as double personality, etc.

Great emphasis is laid upon the conception of "repressed complexes," and it is held that a very large number of phenomena, superficially diverse, may be explained by its application. It is usually supposed, for instance, that a lunatic is irrational. In answer to this it is pointed out, first, that normal rational conduct proceeds from complexes, of the existence of which individuals may be ignorant, but which form the premisses which justify the conduct. If, then, a lunatic is impervious to logic, we are to suppose the existence of "repressed complexes," which for some reason it is not desired should be made public, but which yield a positive proof to the lunatic that the arguments stated to him are fallacious. That is to say, the lunatic is not really an irrational person; his apparent irrationality is due to the fact that we are ignorant of his premisses. Again: the hallucinations of the lunatic are supposed to be the "voice" of a "repressed complex". The interpretation of malicious intention which, in certain cases of insanity, the subjects put upon the conduct of certain persons, independent of the particular character of such conduct, finds a similar explanation.

The subject is presented in a straightforward and vigorous style, which is very appropriate to the requirements of the layman,—as it was meant to be. The scope of the book necessitates the omission of a number of questions, which are, nevertheless, of the first importance.

For instance, practically nothing is said concerning the origin of complexes. This should be a very fruitful field for investigation. Dr. Hart begins from the fact that complexes, having certain relations to one another, do exist, and upon this basis explanation proceeds. A most important question is: Is it possible to discover the factors in the production of a certain set of complexes, exercising contrary forces of differing strengths, in the one mind? Again, we may ask: Why is it that cer-

tain complexes in one mind do *not* conflict, while complexes essentially similar to them in another mind, *do* conflict? Are complexes themselves the source of their motor tendencies, or is this to be found in something which also leads to the production of the complexes? Again: What is the process which leads to the repression of a complex? Such are some of the questions which naturally arise from the facts and from the theory which Dr. Hart puts forward. It need hardly be added that certain psychologists will disagree about the elimination of physiology; but this will probably be due to a difference in aim.

Though intended as a popular exposition the book is an excellent introduction to a fuller study of the psychology of insanity.

BERNARD MUSCIO.

Sociology in its Psychological Aspects. By CHARLES A. ELLWOOD, Ph.D., Professor of Sociology in the University of Missouri. New York and London: D. Appleton & Co., 1912. Pp. xi, 417.

Dr. Ellwood has set out to write an "introduction to the psychological theory of society". He holds that "the development of sociology must depend upon the development of psychology". But "hitherto psychologists have been more concerned with analysing the structure of human consciousness than with developing a psychology of human action. The latest developments in psychology are, however, developments towards such a psychology of human activities or behaviour; and it cannot be doubted that when such a psychology has been fully developed, that (*sic*) it will supply the missing key for the interpretation of social phenomena" (pp. 94-95). "A society . . . is a group of individuals carrying on a collective life by means of mental interaction" (p. ix), and Dr. Ellwood somewhat dogmatically asserts that "it is the interrelations themselves, not their products, which the sociologist is primarily interested in. What he investigates is not so much the organisations and institutions of society as the associational processes which lie back of these, the processes of individual interaction which constitute them" (p. 15). Accordingly the greater part of sociology is simply social psychology, or "psychological sociology" as the author prefers to call it. This is not indeed the whole of sociology, "for sociology has also important biological aspects". There are thus two divisions of sociology, biological and psychological. Dr. Ellwood concerns himself with the latter division, and his investigations into it lead him to discuss the rôles of instinct, feeling, and intellect respectively in the social life, the nature of social mind, the forms of association, the "theory of social order," and in a concluding chapter the "nature of society".

There is a great tangle to be straightened out here. (1) "The social," in Dr. Ellwood's own words, is that which involves the psychic interaction of two or more individuals" (p. 16). If so, what of the distinction between "biological" and "psychological sociology"? Biological factors would thus enter into account only as affecting the psychical interactions of social beings, and would in this respect be on a par with, say, geographical factors, which also affect the psychical interactions of men. But then biological as distinct from psychological sociology becomes meaningless. (2) It is extraordinarily difficult to see how, on his premises, Dr. Ellwood can distinguish between sociology and psychology proper. Here is his own account of the distinction: "The distinction then between sociology and psychology is the same as that between all other sciences—it is *fundamentally a distinction of problems*."¹ The problems of the psychologist are those of consciousness, of the individual mind, as we commonly say;

¹ Author's italics throughout.

while the problems of the sociologist are those of the interaction of individuals and the evolution of social organisation. To put it in other language, the distinction between sociology and psychology is one of point of view. The psychological point of view is the individual and his experiences; the sociological point of view is social organisation and its changes. *Whatever, then, aims at explaining the psychical nature of the individual is psychological; while whatever aims at explaining the nature of society is sociological*" (p. 59). Nothing could well be more confusing in itself or more directly contradictory of the statement (already quoted) that the "primary interest" of the sociologist is not the organisations of society but rather "the processes of individual interaction which constitutes them". Since nearly all the mental life of the individual is developed through and determined by social relations, we cannot possibly distinguish between "the processes of individual interaction," the concern of the sociologist, and "the experiences of the individual" (what experiences?)—the concern of the psychologist. (3) Whatever be the primary interest of sociology, it must at all events have for one interest the results of the mental interactions of individuals, in the forms of social organisation, institutions of all kinds, systems of law and government, and so forth. These resultant social unities are not in any sense *processes* of psychical interaction. If the investigation of these facts is a psychological study, all sciences, the study of all human activities whatever, must be counted psychology, and the distinction "psychological" loses its meaning.

It will be evident that Dr. Ellwood has not devoted sufficient thought to an analysis of the foundation of his argument. Unfortunately the same hastiness characterises the book throughout. Psychological terms are used in a loose and unsatisfactory manner in passages where precision is essential. In the chapter on the "*rôle* of instinct in the social life" we have such naive statements as the following: "Just what beliefs in human society may be traced to an instinctive origin and what to other sources, psychologists as yet are hardly prepared to say"! In the chapter on the "*rôle* of intellect"—as distinct from those of feeling and instinct—the author speaks of "the individual intellect in its forms of imagination, reason and ideals"! These are by no means isolated examples. Perhaps the most curious instance of loose thinking is the footnote to page 367: "The purpose of this chapter is, of course, not to show that social progress is ethically desirable, but, assuming that it is desirable, to analyse the conception of social progress," etc.! There is nothing in what follows to indicate that Dr. Ellwood is not using the expression "social progress" in its proper ethical significance. It seems clear at all points that more rigorous thinking is essential before the author, who has certainly made an extensive and impartial study of sociological literature, can ever make any real contribution to sociological science.

R. M. MACIVER.

Introductory Philosophy, a Text-book for Colleges and High Schools. By CHARLES DUBRAY, Ph.D. Longman, 1912. Pp. 624. 10s. 6d. net.

This is the work of a Catholic priest, professor in a Seminary at Washington. It embraces Empirical Psychology, Logic, Æsthetics, Ethics, Rational Psychology, Theodicy, and Outlines of History of Philosophy. The treatment is comprehensive, without being shallow; faithful to the tradition of the Middle Ages, while mainly regarding modern thought. The author shows a laudable concern to stimulate thought in his youthful readers. What is wanted of them, before they go to listen to a University lecturer on philosophy, is a generally accurate knowledge of the subject in its various branches, along with some capacity of serious reading

and consecutive thinking. What is not wanted in them at any time, but a thing they easily fall into, is an aptitude to reproduce the stock language of deep thinkers with little or no real appreciation of the meaning. This knowledge Dr. Dubray supplies, and against this danger he fortifies. He has produced therefore an excellent book for the hobbledehoy between school and university. Neither is it a work for learners only. A university lecturer will find it an excellent book of reference. The mountain heights of Hegel are safer when the climber descends at times, and takes a walk on the level with the plain man, especially that sturdy tramp named Aristotle, whom Dr. Dubray chiefly follows.

A book like this exposes so much surface as to be an easy field for criticism. Thus we read concerning the Platonic Idea: 'the highest idea is God' (p. 552). So St. Augustine certainly: but if Plato thought so, he never wrote it. Again, is there not a contradiction in the following? 'Could not God have created a world in which there would be less evil, less suffering, and less sin? We do not know . . . the world is good without being the best possible . . . God chose the present order'. If this world is not the the best possible, God could have created a better; and in a better world, presumably, there would have been less evil. The matter at least requires further elucidation. Writing from the camp of the Dynamists, we avow ourselves wholly untouched by Dr. Dubray's missile against Dynamism: 'Dynamism cannot explain real extension, etc.' (p. 429). Not the extension of continuous matter, certainly; that is just what the Dynamist declares an impossibility. Extension according to him is a property of space, marked by matter, matter being phenomenally continuous, noumenally discontinuous, dotted up and down in space, and having its place there. The Aristotelian school, so the Dynamist will tell Dr. Dubray, confounds *space* with *place*, which is a confusion of infinite with finite. The universe as a whole has its *place*, which place is probably moving in space, a movement however impossible for any man to mark. As for *actio in distans*, that is largely a question of language. Instead of 'point-centre of force' say 'centered sphere of activity,' and the difficulty vanishes. Thus much to show that, as might have been anticipated, Dr. Dubray's comprehensive survey touches on themes of discussion manifold. That indeed is the beauty of philosophy. It will not go all into one book, no, not ten thousand volumes.

The following is a favourable specimen of Dr. Dubray's manner, and what we may call the 'American shrewdness' which pervades him throughout:—

'(a) The agnostic attitude is attractive on account of its *apparent humility*. In reality it includes a *great presumption*, that of determining exactly how far human reason can go. There is some humility in saying, "I do not know," but it is quite different to say: "It is unknowable".

'(b) In fact, how can one say of a thing that it is unknowable without having made a comparison of it with the capacity of the human mind, and therefore without having already *some accurate knowledge*, not only of the mind's power, but also of the object which is supposed to transcend this power?

'(c) Can we know the *existence* of a thing, and at the same time be utterly ignorant of its *nature*?"

This, of course, does not end the matter. It is easy to frame a reply on the part of the agnostic. But Dr. Dubray's aim is not to close, but to open discussion.

JOSEPH RICKABY.

The Beyond that is Within. By EMILE BOUTROUX. Translated by Jonathan Nield. London: Duckworth & Co., 1912. Pp. xiv, 138. 3s. 6d. net.

This is an excellent volume. It consists of three essays, dealing respectively with the relations between science and human activity, morality and religion, science and philosophy; the result being to show interconnection throughout.

In the first essay, which gives the title to the book, M. Boutroux asks if there are evidences in us of something which is beyond, or not of one piece with, science. The result of the discussion is to vindicate the right of art, morality and religion as against science, by showing, on Kantian lines, that the scientific conceptions themselves rest on something deeper. What this something deeper is, is shown in the "veritable creation", which takes place in the adaptation of "hard" conceptions to intuition, which goes beyond them, and can never be completely exhausted by them. The power which thus joins conception with intuition is essentially the same as "life," the "free activity" of man, which is "creative," and finds its outlet in art and morality. We may perhaps interpret M. Boutroux's position by a reference to Kant. The central thesis set forth in the Subjective Deduction of the Categories is accepted as the starting point, and Kant's "blind but indispensable" faculty of imagination is shown to be that essentially creative power which we call life, and which, at its highest level, is reason conceived as the union of thought and action. What produces objectivity in the field of science, produces objectivity also in all its activities; and the result of its activity is not merely a phenomenal world over against a noumenal, but reality itself.

This is developed in the two succeeding essays. Morality derives its precepts from something beyond scientific experience. But it cannot be regarded as self-contained. Morality not only implies a faith that its ideals are capable of being realised; it implies further the actual existence of something corresponding to these ideals. We are thus led on from morality to religion; and M. Boutroux shows how the ideals of morality have indeed come from religion. Morality and religion are thus not antagonistic, but neither are they identical. "From religion proceed, as from a life-giving and creative principle, those ideal conceptions of human destiny, those generous enthusiasms, those impetuous yearnings after what is unknown, those strong and tireless energies in pursuit of a super-human perfection, which uplift humanity, and urge it to endless strife with things and with itself. Morality constitutes the reflexion of reason on the manifestations of religious enthusiasm . . ." (p. 93).

In the third essay the relation between philosophy and science is discussed. There is not one science, but many; and each science rests on its own postulates, which are supplied by intuition. When we examine the postulates of the various sciences, these turn out to be just the postulates implied in all action. Thus the sciences and human action spring from a common root reason; and hence, though human action falls outside of science, science has no right to deny it value or reality. "That which characterises reason, that which constitutes truly its essence and its value, is its capacity of blending into an indissoluble whole, the conditions of action and those of knowledge . . . She represents, in herself, intellect in immediate contact with being, thought secretly one with action" (p. 127). And consequently, "If reason, thus understood, is justified in the eyes of a reflection which starts from consideration of the positive sciences, the speculations which express the life and the development of that reason are themselves legitimate. Now, these speculations are nothing else than what is called Philosophy" (p.

128). An excellent discussion follows, of the search for a concept which shall express adequately the relation between philosophy and the sciences; we find it, it is suggested, in the notion of solidarity.

Mr. Nield's translation is extremely good. It reproduces faithfully the spirit of M. Boutroux's writing, without any of the awkward constructions so often met with in a translation. May we suggest that the words "external relations," on the last line of page 131, should be avoided, as having misleading associations? What M. Boutroux seems to be referring to is some such thing as "the relations which things appear at first sight to have".

LEONARD J. RUSSELL.

The Meaning of Christianity. By FREDERICK A. M. SPENCER, M.A.
London: T. Fisher Unwin, 1912. Pp. 420. Price 7s. 6d. net.

The modest name of this ambitious book is a sign of the times. A few generations ago it would have been entitled *Summa Theologiæ*. It runs through the whole gamut of theological questions from the genesis of religion to eschatology. It is essentially reconstructive. It seeks to "correct and develop," with reference to modern scientific and psychical research, the views of the Gospels and the Fathers. It quotes with Catholic appreciation Origen and Oliver Lodge, St. John and Prof. James. On almost every page one discerns Mr. Spencer's efforts to blend the orientation of a scientist with the temperament of a prophet.

The argument may be briefly stated. Religion is activity of souls which is manifested in the spiritual life. The spiritual life is a natural extension of the life which appears on different levels in animals and men. In man we find indications of the spiritual life which point to its complete realisation. Is the present dispensation favourable to the growth of the spiritual life? The discussion of this question leads through chapters on God, Christ, the Holy Spirit, Sin, Atonement, Grace, Institutions of Christianity and the End of the World. The evolution of humanity will gradually lead to spiritual expansion.

So far, Mr. Spencer's frank and undogmatic treatment has been illuminated by real religious enthusiasm. But in the remaining chapters that same enthusiasm leads him to promulgate strange views in a singularly dogmatic strain. Kant in his *Anthropologie* draws an interesting distinction between prophecy and soothsaying. We would fain class Mr. Spencer among the prophets. But Kant would not agree with us. A German librarian would have some difficulty in deciding whether to class the book as *Theologie* or *Geheimwissenschaft*. Mr. Spencer is quite familiar with the after-life. All souls attain immortality. It is "far more certain" than the universal validity of natural laws that souls pass through many incarnations. These incarnations take place in the same globe, and the souls alternate between male and female bodies in order to develop male and female qualities. The book ends with an edifying vision of the Kingdom of God, realised on this globe, and tenanted by these hermaphroditic souls. If Mr. Spencer advanced even plausible grounds for the immortality of the soul (the keystone of his system) he would have a certain justification for erecting his own theories on that supra-Stygian arch. But the following arguments will show the quality of his reasoning: "If there were no experience for an Ego, at least there would be lack of experience for that Ego" (p. 358). "An Ego is indestructible. It remains as the eternal possibility of consciousness" (p. 359). "Were the self to suffer real annihilation, there would be nothing to occasion the sense of all not

being well, when a soul had died" (p. 359). In every case, the fallacy is painfully obvious.

The weakest strand in the book is its treatment of the Author of Christianity. In a long chapter on "The Resurrection," the reader will find not the slightest hint that the Gospels contain any suggestion that Christ rose from the dead. So, in the chapter on "The Atonement," we have an abundance of instances of conversion, from St. Paul to President Finney, but only a cursory reference to Christ's own consciousness of the meaning of the atonement. A book which consistently minimises the fact of Christ can hardly hope to be an adequate exposition of the meaning of Christianity, even for the "modern mind".

G. A. JOHNSTON.

Psychology. A New System Based on the Study of the Fundamental Processes of the Human Mind. By ARTHUR LYNCH, M.A., C.E., I.R.C.P., M.R.C.S.E., M.P. London: Stephen Swift & Co., Ltd. 2 vols. Pp. xxiv, 378; xv, 379-814. Price, 10s. 6d., net, each.

About two such pretentious volumes as these a few words must be said, although one would prefer to lay them aside without comment. The Fundamental Processes are twelve in number: Immediate Presentation, Conception of Unit, Memory, Association, Agreement, Generalisation, Feeling of Effort, Impulse, Hedonic Sense, Sense of Negation, Conception of Time, Conception of Space. "It is impossible to refer to any one of the Fundamental Processes without reference to others. Nevertheless they are distinct." The first volume contains chapters on The Fundamental Process; The Conception of Unit; Addition, Subtraction, Multiplication, etc.; Operations with Spatial Relations; The Axioms; New Views of Geometry; Problems of infinity and Imaginaries; Examination of Fechner's Law; Memory and Reason. Volume ii. discusses Questions of Research, The extended operation of reason in Scientific fields, Association, Externality, Ego and Will, Dreams, Physiology and Psychology, Reciprocal Interpretations of Physiology and Psychology, The Feeling of Effort, The Development of Psychology, and Indications of Progress. The scientific standard of the book may be gathered from certain sentences, which appear amongst the copious notes to the text: "In the preceding account of memory I have relied as far as possible on my own observations and experiments, for beyond that lay a perilous sea of literature" (p. 305); "The references [to the literature concerning dreams] in standard works of general psychology are too numerous to admit of mention" (p. 618). Still, one may admire the diligence the author has displayed in writing up the names of the writers and the titles of works dealing with so many subjects, in so many languages, from so many journals and years.

HENRY J. WATT.

The Thought in Music. An Enquiry into the Principles of Musical Rhythm, Phrasing and Expression. By JOHN B. McEWEN, M.A., Fellow and Professor of Musical Composition, Royal Academy of Music, London. London: Macmillan & Co., 1912. Pp. viii, 233. Price 3s. 6d. net.

This book works over a number of the main topics connected with the general psychology of music, but it can hardly be said to add anything to

our knowledge of them or to make them more approachable. The confusingly reiterative design of the book detracts much from any introductory value it might have. The psychology of rhythm upon which it is founded is both amateurish and vicious. "The dimensions of what can be grasped in one intuitive act of thought" is "the Unit of Thought". That is the bar, although "it manifests an external instability which drives the musical sense to balance it by movement to a second bar". "There is only one simple metre, and all others are compounded of various arrangements and values of this. This basic metre is called Duple." "Triple metre is obtained by associating in regular sequence two duples of different value whose periods are in the proportion of two to one, or one to two." This "theoretical and abstract" Part I. is followed by Part II., Practical and Concrete, where we read that "the unit of speed must be understood as the dimension of the bar as *thought* by the Composer—not necessarily as written". "All quick movements which have only one beat in the bar as written—such as most Scherzos, etc.—have a real bar made up of contrasted strong and weak beats, which is worth two or more of the bars as written. In a similar manner, in slow time the bar as written is often equivalent to two or more real bars." Prof. McEwen's efforts to indicate the *real* rhythmical effect of the Scherzo of Beethoven's Choral Symphony, of Mozart's Sonata in C Minor, and of Bach's 22nd fugue (vol. ii. of the well-tempered Clavier) will hardly meet with hearty acceptance. All cases where the unit of thought seems to be longer or smaller than two beats or bars are examples of augmentation or diminution of the unit of thought. The true rhythmic progression is, moreover, from weak to strong. It may seem not to be so in any particular example, such as the opening of Beethoven's Sonata Appassionata, but it really is so, and in performance this must be realised and displayed. The phrase, whose normal form is said to be four bars, is treated after the same methods. It may seem to be otherwise according to Beethoven, Schubert, Brahms, etc., but that is only because we see them through the clerical conventions which bound them.

First Book in Psychology. By M. W. CALKINS. Third edition. New York: the Macmillan Co. 1912. Pp. xix., 426. Price \$1.90 net.
The Persistent Problems of Philosophy. By M. W. CALKINS. Third edition. New York: The Macmillan Co. 1912. Pp. xxvi, 577. Price \$2.50 net.

The first edition of Prof. Calkin's *Psychology* was reviewed in *MIND* for October, 1911. The revision emphasises the essentially social nature of the conscious self (the contents of the chapter formerly devoted to the 'social consciousness' have therefore been transferred to other portions of the book), accentuates the fact that the study of the self, as thus conceived, involves a study of behaviour, and does away with certain expressions that might be interpreted in terms of an atomistic psychology. The principal changes of doctrine occur in the discussions of attention, of the analysis of will, and of the time-consciousness.

The *Problems of Philosophy* was reviewed in *MIND* for July, 1907. The new edition relates the conclusions of the work to the more recent of contemporary philosophical writings, and in particular refers to the arguments against idealism urged by the 'neo-realists'. Attention is called to two points of terminology: the distinction between 'qualitatively' and 'numerically' pluralistic or monistic systems, and the use of the term 'idealism' in the widest possible sense to mean 'the conception of reality as of the nature of consciousness'.

Mind and Its Disorders. A Text-Book for Practitioners and Students.
By W. H. B. STODDART, M.D., F.R.C.P. Second Edition with Illustrations. London: H. K. Lewis, 1912. Pp. xvi and 518.

This is the second edition of a work noticed in a former number of *MIND*. So rapid is the accumulation of material that, although the first edition appeared little more than three years ago, some additions have been found necessary. The chief additions are two chapters on Psycho-analysis—the psychopathology of the Freudian school. The author also states that “Part III. has been re-arranged in such a way as to establish more clearly the similarity of the various toxic psychoses”. It may be said that, as compared with twenty years ago, the new notes of the study of morbid psychology are the methods of the Freudian school and the toxic psychoses. It is almost unnecessary to repeat that the volume is an excellent text-book of Insanity.

W. L. M.

La Vraie Éducation. By PAUL GAULTIER. Paris. Hachette & Cie. Pp. 284.

This is a well-written and refreshing book upon an old subject. In more ways than one the author recalls the wisdom of Plato. By education he means “la formation de l'esprit et du corps dans leur intégralité et leur harmonie”. This definition itself carries with it the fragrance of Hellas “en un temps où l'on confond volontiers l'éducation avec l'instruction et l'instruction elle-même avec un entassement de connaissances, dans la majorité des cas purement verbales.”

Two sentences in the introduction are worth quoting side by side: “L'éducation ne peut s'opérer à vide, demeurer exclusivement formelle” . . . “De même, on apprend à être fort, à aimer et à vouloir le bien. Voilà l'essentiel.”

In four consecutive chapters M. Gaultier discusses The Education of the Body, the Education of the Feelings, the Education of Intelligence, and the Education of the Will. He makes clear, however, at the outset that “le corps n'est pas séparé de l'âme . . . Il est cette âme même incarnée rendue sensible à tous, aperçue, pour ainsi dire, du dehors. Aussi bien l'esprit bénéficie de ce qui profite à l'organisme, pâtit de ce qui l'étirole.”

And in his concluding chapter he definitely asserts: “Le corps, la sensibilité, l'intelligence et la volonté doivent être cultivés ensemble. Nous n'avons traité séparément de leur formation que pour les commodités de l'étude.”

The great end of education ought to be the formation of complete beings: “des femmes et des hommes de cœur, robustes, intelligents et forts”.

The educator must therefore utilise as much as possible the common elements in human nature to form men and women worthy of the name. Our author would on this account simplify instruction: “L'enseignement qu'il soit littéraire ou scientifique, doit être simplifié, réduit à l'essentiel, aux grandes lignes.” At the same time he provides for the utilisation of individual excellencies. “A chacun son originalité.”

JOHN EDGAR.

Le Conflit de la Morale et de la Sociologie. Par SIMON DEPLOIGE, Président de l'Institut Supérieur de Philosophie (Université Catholique de Louvain). Second ed. Louvain and Paris, 1912. Pp. xvi, 424.

This work aroused much interest in certain circles in France and Belgium when it first appeared early in 1911, and already a second edition has been published. The only addition consists in a preface in which the author takes the opportunity to reply to a critic of the *Revue de Métaphysique et de Morale*.

Mgr. Deploige's book is essentially a criticism of the sociological method and postulates of M. Durkheim and his school. This school holds, according to M. Deploige, that one must choose between ethics and sociology—as a matter of fact even the extremers members of the school, such as M. Lévy-Brühl, say only that the opposition lies between "theoretic" or *a priori* ethics and "scientific" ethics based on sociology. M. Deploige sets out to show that there is no such conflict; that there is only a factitious opposition due to one-sided systems both of ethics and sociology. To prove his point he analyses—very cogently and on the whole impartially—the system of M. Durkheim. He then proceeds to trace its source in German thought—though M. Durkheim, who ought perhaps to know, denies the paternity which M. Deploige provides. Finally the author points out that in the Thomist system there can be found the solution of all M. Durkheim's difficulties. It is a little curious to find Mgr. Deploige offering to MM. Durkheim, Lévy Brühl, and company the system of St. Thomas as a *terrain de ralliement*. It was hardly necessary to go to the *Summa Theologica* to prove that there is no essential opposition between ethics and sociology. But the work, given its presuppositions, is very well done.

R. M. MACIVER.

La Sophistique Contemporaine : petit examen de la philosophie de mon temps. Par GEORGES DUMESNIL. Paris : Beauchesne et Cie., 1912. Pp. 116.

M. Dumesnil begins by disclaiming any invidious implications which may cling to the word "sophistique". French philosophy appears to him to be in a similar position to Greek philosophy in the time of Socrates, and he here presents "*les notes d'un philosophe tout à fait hors de mode, puisqu'il est socratisant*". More than half the book is taken up by a criticism of Bergson, a few pages are given to Chide; they are the representatives of metaphysic. Next we find brief studies of H. Poincaré and Milhaud as typical of the position of science; then a somewhat longer criticism of the ethical views of Rauh and Lévy-Brühl. In the concluding section on religion M. Dumesnil sets forth his aim, which is to vindicate the orthodox Roman Catholic position against the tendencies of anti-conceptualism. Modernism is set aside; the encyclical *Pascendi* has, it appears, settled that question. The science of religion is held to be based on the erroneous assumption that every religion is social by essence and by origin; its students aim at suppressing all religion. But M. Dumesnil holds that the Catholic Religion has a character which distinguishes it radically from other religions: "*la religion catholique est la seule qui parle; elle est la Religio sapiens*".

As a piece of criticism this book is neither sufficiently exhaustive nor sufficiently radical. But it is pleasant reading, and M. Dumesnil is evidently not one of those who, like Johnson's friend Edwards, have

been hindered from becoming philosophers because "cheerfulness would always keep breaking in".

ARTHUR ROBINSON.

Principien der Metaphysik. Von Branislav Petronievics. Erster Band. Zweite Abteilung. Die realen Kategorien und die letzten Principien. Heidelberg: Carl Winter's Universitätsbuchhandlung. Pp. xxxviii, 570.

The first part of the first volume of this monumental work was reviewed some years ago in this journal. Its successor is divided into two sections, the first of which deals with metaphysical questions, the second with hypermetaphysical. By metaphysics, the author means a thorough inquiry into the constitution of the actual universe; by hypermetaphysics the inquiry into the constitution of any conceivable universe. None can doubt the existence and importance of metaphysics but only a few are able to appreciate the necessity and the value of hypermetaphysics. This latter deals with the problems of the one and the many, the bounds of possible knowledge, the ultimate meaning of negation, and the like. The word 'Negations-akt' appears very frequently in the book, and, as was fully explained in the review of the first part, is used in a somewhat peculiar sense.

That the book is interesting goes without saying. Consider what it promises. A deduction of the immortality of the soul; a proof of modified pessimism; a refutation of naïf realism; a combination of Leibnizianism and Spinozism hight 'monopluralismus': the suggestion that the universe will probably attain a condition of complete equilibrium, that the death of the organism is thus infinitely probable, while, at the same time, it is possible that organisms shall arise which neither eat, nor grow, nor die: an acknowledgment of inspiration drawn from Lotze and Hegel coupled with a complete abjuration of Kant and all his works—what, metaphysically speaking, could be more exciting? Our excitement may abate somewhat when we learn that the author's rejection of Kant is due to his own belief in 'the absolute reality of direct experience, and the consequent impossibility of every kind of subjective idealism and illusionism'. His modified pessimism, again, is a very chastened doctrine indeed. It is neither pessimism *pur sang* (which maintains that things are as bad as they could possibly be), nor even pejorism (which maintains that they are very bad indeed). Malismus, as Dr. Petronievics styles his theory, means only that the evil outweighs the good just a little, which is, being interpreted, that in the present state of affairs pain slightly outweighs pleasure. There is another respect, also, in which the present work ought to delight the soul of the metaphysician. We are invited to consider, not conjecture only, but proof positive, and withal a double proof. The important doctrines of the book are proved both by reasoning which is 'analytical and empirical,' and by reasoning which is 'synthetical and deductive'. The author prefers the first method, but would not venture to publish unless he could carry conviction by the second method also. Both methods yield certainty and not merely probability (which is the most that induction can do).

It is impossible, in this place, to deal with the immense range of argument which the work contains. I shall content myself, therefore, by considering the reasoning of the fifth chapter which is, by the author's own admission, the most important in the first part, and illustrates the importance of the '*analytisch-empirisch*' method.

The theory of naïf realism (as maintained by Avenarius, Mach and others) and the theory of immanent idealism (*der absolute Bewusstseinsrealismus*) fail because they are forced to admit directly or indirectly that there are selves in reality which have spatial relations while they cannot consistently account for this fact. To do so it is necessary to draw a distinction between the knower and the content of his consciousness. The knower must be an unconscious simple substance occupying position in space and his nature partakes of will since he is the productive cause of these contents of consciousness. This solves the problems of quantity and quality as forming part of the structure of the world. These simple selves (*die einfachen Einzeliche*) must really be unextended points. An absolute, non-spatial, simple being is a contradiction, since simple means unextended, and the unextended, being the direct contrary of the extended, can only be a point.

Is it really necessary to go farther? The 'analytisch-empirisch' method is demonstration, I suppose, because it gives the only possible analysis of the facts. But surely if the facts be that there are selves, which are distinct from the objects (or contents) of consciousness and also have certain necessary relations to space, there are many possible analyses. Selves must be unities, but why must they be simple? Why, again, must the knower be unconscious just because he is not the known. Surely one possible analysis is that he is directly conscious of the known. Selves again are unextended, but their relations to space might surely be stated in terms of relation to points or, for that matter, to parts of space without thereby implying that the selves were points of space. Nor do the author's previous or subsequent arguments shed light on the reasons for his arbitrary choice.

The book contains a very large number of misprints.

J. LAIRD.

Platons Gastmahl. 3te Auflage. Neu übertragen und eingeleitet von KURT HILLEBRANDT. Leipzig, 1912. Felix Meiner. (*Philosophische Bibliothek*, 81.) Pp. 128.

Platons Dialog Philebos, übersetzt und erläutert von Dr. OTTO APELT. Leipzig, 1912. Meiner. (*Philosophische Bibliothek*, 145.) Pp. 157.

Berkeley, *Versuch einer neuen Theorie der Gesichtswahrnehmung und Die Theorie der Gesichtswahrnehmung*. Verteidigt und erläutert, übersetzt und mit Anmerkungen versehen von RAYMOND SCHMIDT, durchgesehen von Prof. Dr. PAUL BARTH. Leipzig, 1912. Meiner. (*Philosophische Bibliothek*, 143.) Pp. xii, 152.

I. Kant, *Anthropologie in pragmatischer Hinsicht*. 5te Auflage. Herausgegeben, etc. von KARL VORLÄNDER. Leipzig, 1912. Meiner. (*Philosophische Bibliothek*, 44.) Pp. xxii, 328.

J. F. Herbart, *Lehrbuch zur Einleitung in die Philosophie*. Mit Einführung neu herausgegeben von K. HANTSCH. Leipzig, 1912. Meiner. (*Philosophische Bibliothek*, 146.) Pp. lxxviii, 388.

Hermann Lotze, *Metaphysik (System der Philosophie, II.)*. Herausgegeben von GEORG MISCH. Leipzig, 1912. Meiner. (*Philosophische Bibliothek*, 142.) Pp. 644.

The firm of Meiner is deserving well of other than merely German students by its constant reproductions of the classics of ancient and modern philosophy at moderate prices and in excellently printed and edited form. Of the new volumes of the *Philosophische Bibliothek* before us the translation of Berkeley's *New Theory of Vision* and the later essay in its defence contains perhaps least for the English and most for the

German reader, as the translator has contented himself with a minimum of notes explanatory of historical allusions, and refers back to the companion version of the *Principles of Human Knowledge* for the narrative of Berkeley's life and all discussion of the general merits of his philosophy. The elaborate *Introduction* with which Dr. Misch enriched his recent edition of Lotze's *Logik* enables him similarly to dispense with all prolegomena to the reprint of the *Metaphysik*, which is enriched by the addition of Lotze's posthumously published essay on the *Principles of Ethics* and by an admirable index. The reprint of Herbart's *Einleitung in die Philosophie* should do great service in calling the attention of the younger students among us to the solid merit of a thinker who, in this country at least, has never been so widely studied, except by the professional "pedagogues," as he deserves to be. Even for those who may reject the fundamental propositions of Herbart's own system, the *Einleitung* must remain one of the most luminous and suggestive of all "first books" in Philosophy. The present edition contains a very useful further "introduction" by the editor to the Herbartian system in general. The reprint of Kant's *Anthropologie* has profited by the generosity of Prof. Kulpe, who edited the work for the Berlin Academy's *Kant*, and consequently contains much valuable matter which has never been made accessible before except to possessors of that monumental work. Students of Plato will welcome the versions of the *Philebus* and *Symposium*. No one has a better right to be heard on the many difficulties of the former dialogue than Dr. Apelt, and it is pure gain that he has seen fit to add to his version an Appendix dealing with the knottiest problems of exegesis. His textual alterations, however, mostly fail to commend themselves to my own judgment, and I observe that he has actually passed over the worst puzzle of the whole text (that connected with *τὴν αἰδιὸν ᾠῆσθαι* (sic B, *εἰρησθαι φάσιν* I)) without a word. Of the version of the *Symposium* it may be enough to say that the translation is, as it should be, *fougueux*, and the *Introduction* excellent as a study of Hellenic "erotic" temperament, though the translator is, I think, certainly wrong in his curious theory that Plato intends anywhere in the dialogue to glorify himself as the Messiah at the expense of his "precursor" Socrates.

A. E. TAYLOR.

Neues zu Sokrates, Aristoteles, Euripides. Von JULIUS BAUMANN.
Leipzig, 1912. Pp. 127.

Three essays of which the first consists of an analysis of *Memorabilia*, Book I., the second is a version, with interspersed comments, of Aristotle, *Physics B*, and the third deals with Euripides' conception of the world and the *Grundgefühl* of later Hellenism and their significance for ourselves. I cannot myself find anything "new" in Prof. Baumann's essays, unless it is his curious view that the common-places of Xenophon's Socrates form the basis of a model philosophy which retains its permanent value for ourselves and, apparently, for all time to come. The translation of *Physics B* will no doubt be found useful by students who are beginning to approach the Aristotelian doctrine of the "Four Causes" for the first time, but the exegetical comments contain nothing which does not seem to me familiar enough. The third essay, which might have been made the most interesting of the group, results in little more than establishing the far from "new" result, that Euripides and the writers of later Hellenism generally combine a not very well defined

belief in God and God's judgments with a recognition that the course of human affairs often turns out unexpectedly; it is therefore well not to reckon too much on permanent prosperity; one should trust in God, but not forget to keep one's powder dry, and should remember that even if God and the powder-flask both fail one, it is always possible to face destiny courageously. Naturally Prof. Baumann finds it easy to produce numerous illustrations of so widespread a theory of life from all sorts of modern sources, ranging from the hymns of Gerhard to the love-letters of Bismarck and the works of Oscar Wilde. As he admits that parallels are equally common in earlier Greek literature from Homer on, it is not easy to understand why he should regard this conviction that "God moves in a mysterious way" as specially characteristic of Euripides and later Hellenism. I note that he is much too ready to draw inferences about the poet's beliefs from fragments of lost dramas, where the views expounded may be, for all we know, as far removed from those of the author, as they are dramatically apposite. *E.g.*, one has no more right to infer anything about the moral beliefs of Euripides from the casuistry of his Macareus than one would have to deduce a theory of Shakespeare's personal convictions from the utterances of Hamlet. If *Hamlet* had only been known to us by citation in Anthologies we should certainly have possessed the monologue on suicide, and might have been tempted to draw the inference from its silences that Shakespeare rejected the current theological view of the act as an offence against God. Possessing, as we do, the whole play, we know that it puts the theological view into the mouth of Hamlet himself as a plain statement of acknowledged fact ("or that the Everlasting had not fixed His canon 'gainst self-slaughter!"). For so small a work the book is wonderfully full of misprints both in Greek and in German.

A. E. TAYLOR.

Wilhelm von Humboldt und Die Reform des Bildungswesens. By Dr. EDUARD SPRANGER. Berlin: Reuther & Reichard. Pp. 256.

THIS is the fourth volume of the series of "*Die Grossen Erzieher*," and its subject introduces us to one of the most interesting periods of modern educational, and political history—the Renaissance of Germany at the beginning of the nineteenth century. Of this revival of German greatness through education Fichte was the prophet and apostle, Wilhelm von Humboldt the organising genius.

The introductory pages provide a background by sketching the condition and the currents of education in the eighteenth century and the opening of the nineteenth century.

There are four main sections of the book. The first deals with the life and personality of Humboldt, and with his theory of education and Neo-Humanism. The second traces the steps in the organisation of the national control of education. The third sets forth the marvellous progress of reform in different grades of schools from the elementary school to the University—and naturally devotes special attention to the Gymnasia which now entered upon the long career which has made them famous. The fourth section shows the later development of the influence and tendencies of Humboldt, and enables us to realise how his genius is still affecting the evolution of German education.

The volume is worthy of the attention not only of the student of pedagogy, but of all who believe that education "exalteth a nation".

JOHN EDGAR.

Hermann Lotze, *Logik (System der Philosophie I.)*. Herausgegeben und eingeleitet von GEORG MISCH. (*Philosophische Bibliothek*, vol. 141.) Leipzig: Verlag von Felix Meiner, 1912. Pp. cxvii, 632.

A work of such historical importance and so well known to all English-speaking students as Lotze's *Logik* could not, of course, be criticised in these pages, on its reissue, without impertinence. It will be enough to call the attention of our readers to the mere fact that an excellent edition of it can now be had in the *Philosophische Bibliothek* for the modest price of 7-50 marks and that we are promised a companion volume to contain the *Metaphysik*. The present volume is enriched by a long and learned *Introduction* from the pen of Dr. Misch, dealing with the various stages in the development of Lotze's thought, and by a German version of the very interesting essay by Lotze in the *Contemporary Review* (1880), on "Philosophy in the Last Forty Years," which, on one side, is of some historical importance as heralding the revolt against that "Intellectualism" which Lotze was himself only prepared to defend with considerable concessions. The publishers have also added to the value of the reprint by including as frontispiece an admirable portrait of the philosopher, taken from an original of the year 1870. It greatly facilitates the use of the work that the pagination of Lotze's own second edition of 1880 has been carefully preserved. I should mention also that there are good Indexes of names and subjects.

A. E. T.

Fortschritte der Psychologie und ihrer Anwendungen. Edited by Prof. K. MARBE, with the assistance of Privatdozent Dr. W. PETERS. Parts to form a volume of some 24 sheets. Price 12 marks per volume. Leipzig and Berlin: B. G. Teubner. 1912.

The first part contains an introductory essay by the editor, showing how important and indispensable psychology has already become for the most various scientific and practical disciplines, such as Natural Science, Medicine, Phonetics, Philology, Literary Science, Aesthetics, History, Pedagogy, Jurisprudence, Social Economics and Philosophy. The following parts will contain papers on the psychology of observational errors of testimony, of errors of writing, and of the inheritance of intelligence according to statistical correlations, an experimental contrivance towards the study of the instruction of the deaf, and, lastly, Marbe's psychological report on the Mülheim railway catastrophe.

HENRY J. WATT.

Festskrift tillegnad Edvard Westermarck, i anledning av Hans Femtiårsdag, den 20 November, 1912. Helsingfors, 1912.

On the occasion of Dr. Westermarck's fiftieth birthday his pupils decided to offer him their homage and congratulations in the form of a *Festskrift*; for which a word is lacking in English, though the thing is not unknown amongst us. There have likewise associated themselves with this complimentary undertaking Dr. Th. Rein, ex-vice-Chancellor of the Helsingfors University, who was formerly Dr. Westermarck's teacher; and two of his English colleagues, Dr. A. C. Haddon and Dr. W. H. R. Rivers. It is perhaps permissible to say here that other anthropologists who are sensible of Dr. Westermarck's great services to the science of man would have gladly offered to contribute their literary mite, had they known that such a publication was in hand.

It is not customary for the recipient to look a gift-horse in the mouth; and that a disinterested third person should offer to do so for the benefit of those concerned might be taken ill by one and all. It must suffice, then, to take stock of the very varied contents of this highly tasty and nutritious writers' pie. Seven of the essays are in English, six in Swedish, and one in German. "Public Opinion," by Th. Rein, deals with recent manifestations of the *vox populi* in Germany. "The Houses of New Guinea," by A. C. Haddon, provides copious notes on the various types of dwelling to be met with in a region where migrations and the consequent transmissions of cultural elements constitute a leading problem. "Wanderings of the Dead in the Folk-lore of the Kiwai-speaking Papuans," by Gunnar Landtman, presents some of the recent gleanings of a first-hand student of savages. "The Economic Aspect of the Intichiuma Ceremonies," by B. Malinowski, traverses Dr. Frazer's view that totemism has contributed little or nothing to the economic progress of mankind. "The Disappearance of Useful Arts," by W. H. R. Rivers, demonstrates the possibility of advantages in the struggle for existence, such as are provided by the use of the bow, of the canoe, or of the potter's art, being as it were deliberately thrown away owing to superstition or other causes. "The Clan as a Local Unit in Society," by Rud. Elander, shows that kinship organisation need not be at cross purposes with the principle of locality as a group-forming factor. "Some Superstitious Customs in Primitive Warfare," by R. Holsti, argues that primitive war brings about in most cases the survival of those who take magic most seriously. "The Conception of the Causal Relation in Sociological Science," by G. C. Wheeler, seeks to prove that a sort of causality may serve as a methodological postulate in the science of history, though it be not precisely the causality of the physicist. This essay, in particular, is one likely to interest the pure philosopher. "On Some Kinds of Duel in the North," by Thure Svedlin, brings the duelling of the Sagas into line with other primitive forms of the same institution. "The Place of Anthro-geo-graphic Synthesis in Sociology and the Philosophy of History," by K. R. Brotherus, exhibits the limits within which the influence of the material environment may be invoked in sociological explanation. "Bernard Mandeville's Theory of Society," by Ola Castrén, gives an account of the views of the author of the theory "that the moment Evil ceases, the Society must be spoiled". "Plato on Woman's Rights" (if this be a fair rendering of *Platons Keimnopolitik*), by Rolf Lagerborg, embodies a review and appreciation of the famous theories of *The Republic*. "Hutton and Werner," by J. J. Sederholm, carries us back to the days when "Fire or Water?" was the master-problem of Geology. "Kites," by Yrjo Hirn, studies kite-flying from an anthropological and psychological point of view. This brings us to the end of the list of contributors, all of whom manage to say something well worth saying.

R. R. MARETT.

Il Positivismo e i Diritti dello Spirito. Da E. TROILO. Torino: Bocca, 1912. Pp. xv, 365. Price, L. 5.00.

Signor Troilo has published many papers and several volumes on the history of philosophy from the point of view of positivism; the present work seeks to justify his conception of positivism as not only the necessary attitude of science, but also the only philosophy which does full justice to the claims of the spirit. It is in two parts, with three chapters in each.

Part I. shows that both monism and dualism are essential phases of philosophy, neither of which by itself gives a satisfactory account of the universe. Monism is necessary from the point of view of Being, dualism from that of Thought or Knowledge. In the first chapter, making good this argument, there is a criticism of various modern idealisms, from that of Berkeley to those of Hegel, Schuppe, and Bergson, the general conclusion being that from every point of view and for every system the monistic point of view is unrealisable, and is in fact abandoned. Unity is the law of Being, duality that of the Spirit (p. 86). The second chapter discusses the transition, both in the individual life and in the history of philosophy, from the primitive objective attitude of the mind to the secondary, subjective attitude, with an analysis and criticism of the views of Baldwin, Avenarius and Wundt; while in the third it is argued that this transition, though it has meant an enormous enrichment and development of the spirit, does not imply that the later idealistic attitude should have any preference over the earlier positivist one (pp. 154-155). The development has been possible, or has been fruitful, only so far as the two tendencies have been kept in close touch with one another.

The second part is "the philosophical justification of Positivism," with chapters on matter and form in positivism, positive methodology and theory of knowledge, and the rights and values of the spirit. Science is a kind of implicit philosophy, the most concise expression of its standpoint and outcome being the Renaissance formula, *Natura sive Deus*. It is true that the recent movements in science tend to the subjective view of the laws of Nature, i.e., that they are either merely subjective interpretations of man, or at best, instruments by which the manifold of nature may be classified and conveniently dealt with. To this Troilo would add that we are able to create and to use these laws only so far as we ourselves, as subjective beings, as spirits, are the product of a continued adaptation to and contact with nature, i.e., only because there is a correlation, an underlying harmony between the two terms. It is a repetition, in the relation of consciousness to Nature, of the harmony already found in the psychological and logical spheres, between the subjective and objective aspects. "Thus, underlying the subjectivity of our concepts, our schemes, our formule, our laws, there is a sort of nucleus, a root, of primary, essential and irreducible objectivity" (p. 266). This is, in brief, Troilo's philosophical justification of positivism. He rejects, entirely, however, the doctrine of relativity on which Spencer laid so great stress, and in fact attributes to it the subsequent victory of the idealist standpoint, especially in the theory of knowledge. The new positivism is based on the entire adequacy of thought to being, and it is only such a positivism which guarantees the full realisation of all the values of the spirit (p. 301). The development of this argument, however, is left for a subsequent work of the author, a "System of Neo-positivism". The present work is ably written, from its critical and apologetic point of view. The sympathy of the writer with idealism is so great that all the harsher, and perhaps one should add, the stronger elements of the old positivism have been expelled, and the new positivism is difficult to distinguish from idealism itself.

L'Esiglio di Sant'Agostino. Da L. M. BILLIA. Second edition. Torino: Fiandesio & C., 1912. Pp. xv., 295. Price, L. 4.00.

Under its somewhat fantastic title, *The Exile of St. Augustine*, this work is a defence of the idealism of Rosmini against the prevailing Neo-Scholasticism in present-day Catholic philosophy. It is a new and en-

larged edition of a volume published in 1899, and consisting mainly of a detailed criticism of a Belgian book by De Craene, on the "Spirituality of the Soul" (Louvain, 1897). Indeed, the greater part of its bulk consists of texts and quotations of considerable length both from ancient and from modern philosophers; and the author himself is by no means concise. The chief argument is that ideas are not a product or creation of the human spirit, but a manifestation in us of the divine Intelligence and Will, which are the source alike of the existence and forms of Nature, and of the truth and certainty of human knowledge. St. Augustine, Malebranche and Rosmini are vigorously defended against Aristotle, Aquinas, and all the Neo-Thomists of to-day. Running through the whole work are the familiar ideas of Rosmini, not only in philosophy proper, but also in politics and in religion; the idea, for example, of a universal Church which, while remaining Catholic, shall return to the purity of the Gospel teaching; a Church of the State, but with less priestcraft and ceremonial and greater liberty both of thought and of action. Some idea of the contents of the work may be gained from the titles of a few of the chapters, which, for some reason, the author calls *Respiri*: "The Thomist movement hostile to idealism, which it does not understand, and friendly to positivism;" "Idealism classified and defended from calumny;" "Sensation and Idea: Inadequacy of Taine's view;" "The Psycho-physics of Plato, of Malebranche, and of Rosmini" (three chapters); "Materialism of the Neo-scholastics."

The eleventh and twelfth chapters are mainly reprints in French of a discussion with Count Domet de Vorges on the earlier edition of this work; and there are two appendices, reprints of two papers, in French and Italian respectively, on the theory of knowledge and on matter.

Although the whole work is mercilessly diffuse, and curiously out of touch with modern thought, it is an interesting document, representing a movement of which in England we have little experience.

J. L. MCINTYRE.

Fatti e Problemi del Mondo Educativo. Da GIOVANNI CALÒ. Pavia: Mattei Speroni e C. Pp. 270.

In this volume the author has collected a series of essays bearing upon educational theory, and practical educational reform. The opening essay deals with the Science of Education and leads up to able discussions on the possibility of a distinction between philosophy of the spirit and pedagogy, on the modes and limits of educative action on psychical development, on social pedagogy and religious education.

One essay gives a general outline of theoretical and practical reforms, and is followed by a series of papers specially devoted to the reform of the middle or secondary school. Among the subjects taken up in this series are Formal Culture, Classicism and the Cultural School, the reform of the programmes of the primary school both in relation to its own peculiar work, and in its relation to the middle school. The closing essay is an appreciation of the pedagogical achievements of Pasquale Villari.

JOHN EDGAR.

Prolegomeni ad una Psicodinamica. Di C. Bivso. Milano, Roma, Napoli: Società Editrice Dante Alighieri di Albrighi, Segati e C., 1912. Pp. 176. Price L. 2.50.

According to Sig. Bivso, we are in need of a new psychology. Hitherto psychology has studied the soul or brain as a thing by itself, whereas in

this world there is no such thing as solitude. The psychology of the future, to which this little book is intended to serve as Prolegomena, will rectify this mistake and will study the brain as a co-existent. It will investigate thoroughly the action of soul on other matter, whether cerebral or non-cerebral. In the meantime it is enough to point out that while most forms of this action, e.g. 'moral' influence, hypnotic influence, levitation, are to be explained as examples of 'contact at a distance,' this fact in no way distinguishes the human from the infra-human world. For 'contact at a distance' is a phenomenon of common occurrence in that world too, witness the law of gravitation, molecular cohesion, geotropism, sensitive plants, metamorphic rocks, etc., etc.

W. L. LORIMER.

Beauty and Ugliness: and other Studies in Psychological Aesthetics. By VERNON LEE and C. ANSTRUTHER THOMSON. London: John Lane, 1912. Pp. xv, 376. Price 12s. 6d. net.

THIS volume serves a triple purpose: it gathers various essays and notes together round a common theme, it is a biography of rather ill digested views and observations, and it serves as the occasion for a more or less explicit claim to priority.

In the introductory pages, entitled "Anthropomorphic Aesthetics," the reader is introduced to the common theme of the collected papers—"the central discovery of modern aesthetics"—"the projection of our inner experience into the forms which we see and realise". With this discovery the names of Theodor Lipps and Karl Groos and their theories of 'Einfühlung' and 'Innere Nachahmung' are most closely associated. But in 1897 our authors published in the *Contemporary Review* an essay on "Beauty and Ugliness" and they draw the reader's attention to it by reprinting it here (pp. 156-239), showing the parts written by each of them, and adding, in notes dated 1911, indications of changes of opinion and insight which have taken place since the previous date. They are much concerned to show that, in the original essay of 1897, "contemporaneously with the speculations of Lipps and of Groos and in complete ignorance of both," they attempted "to carry the same ideas still further in the direction of psychophysical parallelism" (p. 25).

A claim to priority is quite consistent with the generous recognition of the success and merits of other independent workers. Full of this spirit, Vernon Lee was glad to encounter and welcome Lipps's *Reinästhetik*, in which, she says, she "instantly recognised the clue to the whole subject". And she became forthwith an enthusiastic disciple of Lipps. But the master was strangely unsympathetic and failed to see the kinship of his ready allies. He denounced their false prophecy and poured out upon them the full vials of his scorn,—in the *Archiv für Systematische Philosophie*, Band iv., 1900. "The cult of organic sensations has become a mania," he cried. "It is impossible that I should in any sort know of the changes in my body, of muscle-tensions, so long as I contemplate a column and am sunk in the enjoyment of its beauty." "A genius like James may be pardoned for spinning out grotesque ideas at his ease once in a while; but it is time the endless spinning out of them were stopped." The effect of this criticism upon Vernon Lee and further notes and discussions are to be found in the paper entitled "Aesthetic Empathy and its Organic Accompaniments," translated from the French of the *Revue*

Philosophy volume lxiv., 1907. This translation occupies pages 45 to 144 of the present book. The rest of the volume is filled with copious extracts from Lee's *Gallery Diaries* of the years 1901-1904 (pp. 41-350), under the heading "Æsthetic Responsiveness: its Variations and Accompaniments," and it ends with a 'Conclusion' of fifteen pages.

Some idea of the incompatibility of the mind of Theodor Lipps and that of these collaborators may be drawn from the following sentences, which express the insight they have gathered in the eleven or twelve intervening years: "Prof. Lipps's testy criticism on *Beauty and Ugliness*, to the effect that it is impossible to be aware of bodily sensations while absorbed in the joyful contemplation of a Doric column, therefore shrinks into mere evidence to an individual incapacity either for self-observation or for such complex impressions as associate in other folk's minds the visual image of the Parthenon columns with the smell of sunburnt herbs on the Acropolis and the tinkle and bleating of sheep that rise from the valley below" (p. 349). "Granted that this empathetically attributed movement and energy are, as Lipps long since pointed out, *abstract*, or as I [sc. V. Lee] have called it, residual of countless past experiences, there remains the question: Why should these *ideas of movement*, these abstractions from innumerable memory-images of movement, be awakened in connexion with motionless shapes, and, what is more, awakened in a higher degree and in a very varied manner, by some shapes rather than others? In fact, must there not be in us some *present* movement, however slight, to set going this chain of associations of movement," etc. ? (p. 354). "That this actually existing and suggestive movement is largely that of the eyes and of all the bodily parts instrumental in adjusting our sight or affected by such bodily adjustments, I feel more and more inclined to think." "The æsthetic pleasantness and unpleasantness of shapes," on the other hand, Lee believes to be "explicable by the mental process of formal-dynamic empathy, by the interplay of forces suggested by those shapes, and by the pleasantness or unpleasantness of such inner dramas of abstract movement-and-energy-associations" (p. 355).

In æsthetic contemplation the impressions from the object, empathy and all it involves, actual and revived organic and other sensations of individually varying kinds, are undoubtedly present. But it is also true that in æsthetic contemplation, we enjoy the æsthetic object; we do not know of, or enjoy, actual or revived or condensed organic sensations or the like. What is enjoyed must essentially constitute the æsthetic object. Experimental æsthetics undertakes the discovery and investigation of all the experiences which enter into, or effect, the realisation of the æsthetic object and its enjoyment. Our authors admire, though they do not follow, this line of work; they prefer the task of wide, occasional, observation and of speculative theory. Lipps may not always have done justice to the claims of analytic, experimental work, but there can be no doubt that he appreciated, as well as perhaps any one, the problem of the coherence of the æsthetic object, the interdependence of all its parts, and the important functions exerted by the stimulative centre of the æsthetic object—the sensory data of impression. Surely our authors have failed to see this problem of coherence, its importance and its essential relation to the problem of empathy. Apart from this failure, the volume is so full of repetitions and of unnecessary and unprofitable talk that it can only have the value of a biographical document.

HENRY J. WATT.

The Dynamic Foundation of Knowledge. By ALEXANDER PHILIP, M.A., LL.B. London: Kegan, Paul, Trench, Trübner & Co., Ltd., 1913. Pp. xii, 318.

This work is an interpretation of experience from the activistic standpoint. It is therefore in line with a tendency which is fashionable in the ranks of present-day philosophers, and still more fashionable among the camp-followers. But Mr. Philip is more than a camp-follower. In 1887 and 1897 he published essays on the nature of matter and energy, in which he maintained that "the scientific concept of energy adequately explains the phenomena of nature, and that the inconsistent concept of material reality should be finally abandoned". These conclusions are used in the present work as a basis for the interpretation of the choir of heaven and furniture of earth.

The book falls naturally into four sections. After sketching his solution of the problem of knowledge, the author reviews the history of metaphysical speculation, and indicates how his theory clears away the mists that hang about the peaks of metaphysics. He then briefly shows that his view is supported by physical science, and finally in a rapid survey explains what new light his doctrine will throw on various departments of knowledge.

Mr. Philip starts with the constant mutation of the sensible world. It is not a world in which things are in constant change. It is itself constant change. In sensation we are aware not of that which changes but only and solely of the change. Matter is only a process of change and motion. In order to find the real and immutable it is therefore necessary to transcend the limits of the world of sense. Reality is "erected for us by an intellectual operation" (p. 10). This erection consists in the system of affirmative judgments actively made by the waking consciousness. Theoretically it is possible to doubt this reality. But practically we must act as if it were true. Thus on the one side we have the 'actual' world of sense. Beyond this phenomenal world the affirmative judgment postulates or erects Reality, which consists solely in Power or Energy.

Even from such a brief outline as this, it is evident to what lines of thought Mr. Philip is chiefly indebted for his eclectic doctrine. His theory does not escape the pitfalls into which every such view has a tendency to fall. In asserting the priority of activity to cognition, the author is involved in a common confusion, the confusion between unconscious power and conscious power. As unconscious power, activity may be prior to cognition, but as conscious power it *eo ipso* involves cognition. In order to secure its priority, Mr. Philip drags in the notion of 'intuition'—the most slippery of all philosophical terms. Further, there is confusion in Mr. Philip's doctrine of the relation of my self and other selves to the fact of activity. Sometimes (*e.g.* pp. 26-27) the notion of my self and other selves is derived by inference from the data of sensible change, in which power is manifested. But, again (*e.g.* pp. 21-22) the postulate of power is erected as an inference from my own immediate awareness of activity. The Cartesian *cogito ergo sum* is replaced by *ago ergo possum*. Hence is derived the idea of power. On the former view my self and other selves are interrelated inferences from the fact of activity or energy. On the latter view the agency of other selves is postulated and inferred on the analogy of the activity of myself. Mr. Philip appears to be aware neither of this confusion nor of the fallacies of the 'analogical' view. It is difficult to see how the concept of power or energy effects the escape of the theory from a fatal dualism. Set up on one side a world of sense which is actual (but not real), and postulate on

the other a world of power which is real (but not actual?), and even the concept of energy will fail to secure a real unity.

In the survey of metaphysics which follows Mr. Philip's sketch of his position, he displays a far from reasoning knowledge of the history of philosophy. He starts so far back as Heraclitus, and takes uniformly peculiar views of the various links in the philosophical development. In general he gives no evidence for his statements. As an example of his methods we may refer to two points in his account of Plato. Plato, we are told, represented the real character of things by *ἰδέα* and the essence of knowledge by *εἶδος*. For this view no evidence is adduced. Now any evidence that Plato did distinguish between *εἶδος* and *ἰδέα* tends rather to invalidate this view: i.e. If Plato did distinguish, *εἶδος* means the distinct and definite kind, and *ἰδέα* the notional form. But it is really impossible to draw any sharp line of demarcation. Again, Mr. Philip believes that Plato's failure to solve the problem of knowledge was due to the fact that he gave no place in his theory to the conception of *δύναμις*. But this belief, though commonly held, is demonstrably false. The importance of the conception of *δύναμις* in Plato will be realised by anyone who cares to refer systematically to the passages in which the term occurs.

After having displayed the adequacy of his own view as contrasted with the defects of previous philosophy, Mr. Philip proceeds to show that his theory is supported by modern science. The Real is an "active energetic kinesis" (p. 74). Everything in the world may be reduced to Energy and its manifestations. Reality is itself a constant process of transmutation. To such a view the physico-chemical sciences are infinitely more friendly than they were twenty years ago. In particular, the discovery of radium as an element in which a process of transmutation is taking place has suggested the possibility that the so-called ultimate elements of matter are all undergoing transmutation. But in so far as these sciences still maintain the independent existence of three ultimate forms of reality, matter, energy, and electricity, they certainly do not lend any support to Mr. Philip's theory. This scientific position may prove to be merely another instance of the dogmatism of modern science. But we may at least affirm that it does not seem probable that matter and electricity should be reduced to energy. This would mean that the Cosmos was to be reduced to one of its forms or elements. It is difficult to see how the ultimate unity of the universe should be found to be one of the elements within the universe.

In the last section the author applies his general theory in various departments of knowledge. He ranges lightly over such wide and diverse fields as biology and aesthetics, ethics and metrics, dynamics and significs, pedagogy and physiology, economics and geometry. With all respect for Mr. Philip's real synoptic ability, may we suggest that (in spite of Mr. Merz) the days are past when Bacon took all knowledge for his province, and the Admirable Crichton challenged Paris to dispute *de omni scibile*?

G. A. JOHNSTON.

Lettres inédites de John Locke à ses amis Nicolas Thoynard, Philippe van Limborch et Edward Clarke. Publiées avec une introduction et des notes explicatives par M. HENRY OLLION, docteur ès lettres, professeur à la faculté libre des lettres de Lyon, avec la collaboration de M. le professeur Dr. T. J. DE BOER, de l'Université d'Amsterdam. La Haye : Martinus Nijhoff, 1912. Pp. x, 258.

Professors Ollion and de Boer have rendered a distinct service to the student of Locke, by making accessible in their completeness and editing

these three series of letters to his friends. In addition to the letters themselves, the volume contains a short preface, notices of Thoynard, Limborch and Clarke, and explanatory notes, which throw the necessary light upon the numerous references to persons and books. Its value is further enhanced by an index and bibliographies. Dr. de Boer's share of the work consists of the determination of the text of the letters to Limborch, the notes dealing with them and the account of the Remonstrant Theologian. For the remainder of the volume Prof. Olsson is responsible.

Complete novelty cannot, indeed, be claimed for any of the three sets of letters now published. Of the letters to Limborch the more important were printed, with occasional omissions, among the 'Familiar Letters of Locke to Several of his Friends,' in 1708; while the letters to Thoynard and Clarke, preserved in the British Museum, have been drawn upon by Fox Bourne for biographical purposes. As now published in full the letters to Thoynard, which occupy more than half of the volume, serve to throw light on some sides of the intellectual life of Locke, and illustrate the width and multifarious nature of his interests. The correspondence abounds in references to questions in all departments of the physical sciences, to the mechanical inventions of the day, to books of travel and to publications upon subjects which made a special appeal to Thoynard, such as chronology and biblical history. Among the subjects of common interest questions of a philosophical nature unfortunately found no place. Hence the correspondence fails to furnish us with information, either concerning Locke's reading in this direction, or concerning the development of his own thought upon the subjects dealt with in the *Essay*. Indeed, the chief result in this respect of the publication of the letters in full, is to show that the one important deduction drawn from them by Fox Bourne rests upon an obvious blunder. It was never possible to reconcile the statement that Locke regarded the *Essay* as 'completed' in 1679 with what we know of the progress of his thought at that date; with the clear evidence that large parts of it were written subsequently; with Locke's own account of the time at which it was 'brought into that order' in which it was given to the public; or, with Lady Masham's more emphatic declaration that it was during his retirement in Holland from 1683 to 1689 that 'he had full leisure to prosecute his thoughts on the subject of Human Understanding; a work which in all probability he would never have finished had he continued in England'. Nevertheless the statement, given as a quotation from a letter by Locke, has been repeated by Fraser and others without question. The context, however, shows, as Prof. Olsson points out, that the book which was 'complete' in 1679 was not the *Essay*, but Locke's copy of some portion of Thoynard's *Harmony of the Gospels*.

As has been indicated already, the letters to Limborch here published are the completion of a correspondence already familiar. The most interesting new material consists of an argument for the unity of God drawn from his omnipresence as filling all space. The positions implied are to be found in the *Essay* and elsewhere, but are nowhere else so fully or so emphatically stated. The letters to Clarke are almost entirely of a domestic character. In them we see Locke acting as medical adviser on all questions affecting the health of the family, fighting his own brave battle with disease, and rarely failing to send his 'service' to little Betty Clarke, his child friend, always referred to as 'my wife'. Some slight errors would appear to have been made in the deciphering of this set of letters. Apart from these the book has been produced with commendable care.

JAMES GIBSON.

La Pensée Contemporaine. Les grands problèmes. Par PAUL GUALTIER. Pp. viii, 312. Paris: Hachette. 3 fr. 50.

This book discusses, with great clearness and considerable charm of style, many of the subjects with which speculation is busy at the present time. The author agrees in the main with the views of M. H. Poincaré and M. Bergson, but turns the edge of his weapon against M. Charles Lalo and M. Paulhan. "M. Charles Lalo prive, en effet, l'œuvre d'art de tout contenu psychologique. L'art n'est, pour lui, qu'une technique, et rien d'autre (p. 161). "Pour M. Paulhan, la morale est un mensonge collectif" (p. 180). To handle such a mass of current problems in so small a compass requires considerable skill, but M. Gualtier may be congratulated on the achievement of his purpose,—“Sous la forme la plus claire, le plus vivante et la plus concise que j'ai pu, j'ai tâché,—en profitant des conquêtes les plus récentes et les mieux établies de la pensée moderne,—sinon d'apporter des solutions, du moins d'indiquer des voies”.

ARTHUR ROBINSON.

Philosophie Sociale. Par MADELEINE PELLETIER. Paris: Giard et Brière. Pp. 146. 2 fr.

We find here recorded the views of “une femme politique” on the formation of opinions, on parties, and on social classes. These do not appear to fall within the scope of this review. But the following will be news to most: “La morale Kantienne de l'impératif catégorique ne vise à autre chose qu'à défendre la propriété contre les sans-propriété” (p. 15). Nor will it encourage the readers of *MIND* to learn that “en thèse générale, l'ennui croît avec l'intelligence” (p. 48).

ARTHUR ROBINSON.

Psychologie der Kunst: eine Darstellung der Grundzüge. By RICHARD MÜLLER-FREIENFELS. In two vols. Leipzig, 1912.

Students of aesthetics will welcome this attempt to give a systematic account of the psychological processes involved in æsthetic enjoyment and also in æsthetic creation. The book is written in a style which is remarkably clear and easy for an English reader. The whole treatment shows a wide and sympathetic knowledge of the various arts and of the general history of art, and the author includes within his materials information gathered from experimental, ethnological and sociological sources. It is unfortunate, however, that he has not included in the first named some of the most recent important work done by American and English psychologists.

The author asserts his general psychological standpoint to be represented broadly by such writers as James, Ebbinghaus and Höffding, and we have usually found his discussions reasonable and sound from this point of view. The first volume includes a careful analysis of the various types of æsthetic enjoyment and of its intellectual components, and of the part played by feeling and the emotions. A short book on artistic production follows. In the second volume various topics—music, poetry, painting, etc.—are dealt with in some detail.

At the outset the author distinguishes the æsthetic, as that which has its end in itself, from the practical, in which we are concerned with some-

thing beyond the mere activity itself, though he admits that the two are often mingled. Under the term *Æsthetic* he would include Play, from which Art is distinguished in that this latter can be expressed and "fixed" in an objective form while that is not the case with Play. It would seem, however, that some forms of play are not distinguishable from, say, drama, by this criterion. One must surely introduce a reference to the different mental attitudes.

Herr Müller-Freienfels shows good grounds for questioning whether the highest æsthetic enjoyment is experienced by those who are pre-eminently of the reflective, analytic type. He doubts too the capacity for keen musical enjoyment of those who find music full of "ideas," as represented, for example, in some descriptive programmes.

Whilst maintaining that there is always pleasure in the true æsthetic experience the author fully admits the part played by intermingled pain in intensifying feeling. Only in the "successive" arts however, such as music and fiction, can the artist successfully introduce moments of almost unmixed pain for the sake of contrast.

In the chapter upon music the author, in dealing with the origin and development of music, gives due weight to the influence of the ease or difficulty of production and of the structure of instruments in determining the evolution of music. But in dealing with the origin of harmony he fails to consider Myers's suggestion as to the influence of the relations of successive notes. His observations upon the absence of specific effects of minor and major chords have been confirmed by some recent experiments of the reviewer, and in general the sections on music seem to provide a useful summary of this branch of æsthetics.

The sections on colour would gain from some consideration of the work of E. Bullough in this country, while elsewhere the recent work of Prof. Lillien Martin and of Miss E. D. Puffer deserve fuller treatment.

C. W. VALENTINE.

Goethe. By GEORG SIMMEL. Leipzig: Klinkhardt & Biermann. Pp. viii, 264.

Philosophic interpretations of poetry are always largely matters of taste. Some people like them, and others do not, and it is to be feared that the former are usually themselves philosophers, and that they do not often appeal to lovers of poetry. At best the procedure is too suggestive of breaking a butterfly upon the wheel, and most of us do not like to see this any the better when the butterfly is big and beautiful. It seems radically unfair to make upon a poet the demands for consistency and system to which a philosopher naturally exposes himself, and profoundly unpsychological to press these demands without regard to the dates and events of the poet's life. More especially does a philosophic contemplation *sub specie æternitatis* seem inappropriate in the case of a poet like Goethe who lived an extraordinarily varied life, and almost openly flaunts the dependence of the feelings and opinions he expresses on his personal experiences. If such career is to be philosophised about at all, the most careful attention to dates and to the biographical background would seem to be demanded. In the whole of Prof. Simmel's book however there is hardly a date, and nowhere an exact reference, and hence it is quite impossible to check his statements. If in addition it is noted that his style is difficult and obscure, with paragraphs often extending over three or four pages, and his polemic against unnamed views about Goethe obscurer still, while no hint is vouchsafed of the plan and purport of the book

beyond the statement of the preface that it asks 'What is the spiritual sense of Goethe's existence in general?' and the confession that an interpretation of Goethe must always also be a self-confession of his interpreter, it will not be hard to infer that the book is '*nicht Jedermann's Sache*'.

F. C. S. SCHILLER.

Scienza e Razionalismo. By FEDERIGO ENRIQUES. Bologna: Nicola Zanichelli, 1912. Pp. xv, 302. Lire 5.

This book contains the result of seven years' reflexion and criticism, and consists of articles which have appeared in various Reviews,—notably *Scientia*, of which periodical Prof. Enriques is one of the editors,—rewritten and welded into an organic whole. The growing domain of influence of the scientific spirit—rationalism—has roused up an anti-scientific reaction originating from those whose interests are threatened or whose habits are disturbed. And yet it must be granted that the doubts from which this reaction started are not wholly unfounded in reason, since everybody can see the dangers to which an inadequate comprehension of science and the narrow rationalism that accompanies it may give rise. But he who has once accepted the idea of the fundamental equality of men in the presence of reason, and has grasped, on the other hand, the irrevocableness in the extension of scientific ways of thinking, cannot bring himself to oppose vain obstacles to the progressive movement of our civilisation, but will try to help and direct it, and thereby bring about the advent of a wider rational view adapted to satisfy the needs of modern life. Such is the object of Prof. Enriques's book.

The first Part is devoted to giving precision to and maintaining, against the claims of pragmatism, the value of science; and the artistic, moral, social, and political value of science is pointed out.

The second Part is on Rationalism and Empiricism. The history of rationalism is traced from the Eleatic criticism of the Pythagorean doctrines, through the logic and metaphysics of the Eleatics, Plato's theory of ideas, the forms of Aristotle, and Galileo's conception of science, to the metaphysical rationalism of Descartes and Leibniz. Then the proofs of the existence of God with Anselm, Descartes, Spinoza, and Hegel, their criticism by Kant, and the pragmatist value of the ontological proof are discussed, and a short section on judgments of existence in the recent critique of the principles of mathematics is added. The weakness in the position of those mathematicians, we read on page 76, who, like G. Cantor, consider such conceptions as that of the "totality of enumerable series" as given, is shown by the "paradoxes of the theory of aggregates," such as that of the concept of the class (S) of all those classes which are not members of themselves. "These paradoxes are sufficient to refute the admission of a logical existence based on the verbal definition of a totality of which the general term cannot be constructed inductively in thought." Then the use of the principle of sufficient reason in natural science and pure mathematics is shown; its position (p. 100) is not logical but epistemological. Finally, there is a discussion of the English empiricists, Kant's critique of knowledge, and the Kantian *a priori* and non-Euclidean geometry. Then a rational doctrine of the concept is founded, and the objections raised by the English empiricists against the process of mathematics dealt with; and, by the light of this doctrine, the critical problem concerning the possibility of a rational science receives a clear solution, which may be described as experimental rationalism.

The third Part is concerned with the conflict between Rationalism and Historicism, the metaphysic of Hegel, and historical Rationalism and the theory of the social mind; the fourth Part deals with the theory of the State and the representative system; the fifth with philosophical particularism and with positive philosophy and the classification of the sciences; and the sixth with science and religion and the problem of reality.

Prof. Enriques rather frequently misspells names in an irritating way: we read of "Kirkhoff" on page 11, "Shopenhauer" in the index (although the name is correctly spelt on p. 82), "Russel" and "Zarmelo" on page 114, "Maimone" on page 159, and variations on du Bois-Reymond's name on pages 76, 113, 298. Further, Bacon seems hardly ancient enough to be Italianised into "Bacone" (pp. 56, 251), even if "Duns Scoto" (p. 31) be passed. However, much may be forgiven to a man who does not fall into the traditional mistake of spelling Leibniz's name as "Leibnitz". However such mistakes or merits are, of course, of small importance; and we proceed to consider the doctrines of the book.

It is impossible not to admire the broad and sane spirit of scientific synthesis that pervades this book. But perhaps the perception of the great fundamental connexions of things necessitates a disregard of those details which seem so important to a specialist. Indeed, one must conclude that Prof. Enriques himself, from what he says on page 25, recognises that, questions of utility or individual preference apart, there is no difference in value between truths. And, in the second Part, there appear to me, to be some loopholes for criticisms.

On pages 43-46 is given, apparently after P. Tannery,¹ the view that, in spite of their discovery of the incommensurability of the diagonal and side of a square, the Pythagoreans held an atomistic doctrine of space and time, which they considered to be protected from the profane by the above discovery, and Zeno's puzzles were directed against this atomistic doctrine. Prof. Enriques repeats the first two—the Dichotomy and the Achilles—of Zeno's four puzzles, and remarks that the reason why the evident objection that the series of spaces or times considered in these two arguments is a convergent geometrical progression falls to the ground is that we are to reflect that the Pythagorean hypothesis was that there is a least interval of time (for example), and that thus the sum of an infinity of instants must then always be infinitely great.

If I am not mistaken, this account of things will be new to many, at least in England, besides being unsatisfactory. It has usually been supposed that the first three of Zeno's arguments were directed against infinite divisibility and the fourth against atomism.² And it was against the idea that Zeno denied motion because the moving object would have to pass through an infinity of positions that Aristotle directed his remark: "But the moving object does not count as it moves". And, in comparatively modern times, the mathematician Leopold Kronecker was of the opinion that, "without the supposition of some discontinuity in the filling of space, no change of position in space—that is to say, motion—is thinkable". Kronecker, then, seems to have thought that Zeno's argument in the Achilles, for example, is valid if we suppose that space is infinitely divisible. That Kronecker denied the existence of irrational numbers is irrelevant in this case, for he knew that the "sum" of an infinite convergent geometrical pro-

¹ *Pour l'histoire de la science hellène*, Paris, 1887.

² Cf. Russell, *Principles of Mathematics*, Cambridge, 1903, p. 352.

gression with a rational base is rational. Many things seem to have escaped Kronecker's notice; but one simple fact—which would appear to contradict the thesis that the Achilles destroyed an atomism of space or time—he, of course, grasped: the “sum” of the terms, after a certain one, of the above convergent series ultimately, that is to say, as the term referred to is chosen later and later in the series, becomes less than any non-zero number, however small. Hence, all except a finite number of terms of the above series represent a total length less than one of the supposed atoms. Zeno, then, did not prove that there must be an infinity of atoms in a finite space.

The treatment on pages 74-76 of existential judgments, culminating in the passage quoted above, ignores the distinction between Being and Existence. If there were an *S* (if *S* had Being), we could easily prove that it “exists”. The puzzling thing is that the general term and the class *S* appears to be genuine things; and the attacks given by Prof. Enriques seem to miss the point. *Every* definition is verbal; it concerns symbolism only and serves as basis for nothing except the name. It is mere baptism, and not creation. No general term of a logical class is constructed inductively, and there is no reason for accepting only those defined by “mathematical induction”.

To what Paul du Bois-Reymond called “idealism,” and which is, according to page 76, “realism” in the scholastic sense, is attributed, on page 114, the “inextricable obscurities and contradictions” of such paradoxes as those of Burali-Forti and Russell, and such pseudo-demonstrations as that of Zermelo of the possibility of well-ordering the continuum. The epithets are now, fortunately, out of date; and, though, of course, there may be a point of view from which the very different considerations of Burali-Forti and Zermelo result, no explanation is given of exactly what this point of view is.

It is true, in a sense, that the paradoxes arise from the supposition of a “totality”. But that precision is needed results from the remark (p. 76) that the concept “Aleph-zero”¹ cannot be admitted.

Page 110 would have been, it seems, a good place to point out that modern research into the logical principles of mathematics is, far more than non-Euclidean geometry, fatal to the Kantian thesis that our mathematical conceptions must be schematised in space or time.

However it is probably true that accuracy on the points I have mentioned would, as some people say, “displace the centre of gravity of the work”.

PHILIP E. B. JOURDAIN.

L'Infinito. By COSMO GUASTELLA. From vol. iii. of the “Annuario della Biblioteca Filosofica”. Palermo: Libreria Internazionale, Alberto Reber, 1912. Pp. 172.

The object of this work is to show that the antinomies (in the Kantian sense) exist; in other words, that the actual infinite is impossible. The solution of the antinomies, says the author, will be, perhaps, the subject of another work (p. 3). The actual and the potential infinite are distinguished, and the latter alone—a variable infinite—is logical (p. 5).

¹ That this conception is “the totality of all enumerable series” is not that of Cantor. It is something like that of Russell.

The "actual infinity" of the parts of a straight line is meaningless (pp. 9-10), the field of the potential infinite is the future (p. 8), and there is no totality with the potential infinite (p. 9). The idea of the actual infinite is that of a series which has no last term but in which beyond each term is given another (p. 16), and the author passes in review the various applications which the human mind has made of this idea to, *e.g.*, the infinity of space, the infinite regress of causes, and the continuity of motion (pp. 17-22). The idea of actual infinity is a consequence of realism, and realism is a consequence of the laws of association of ideas (p. 22). The apparent cases of actual infinities are discussed singly (pp. 23-33); and a contradiction is discovered in that an infinite aggregate may have a one-one correspondence with a part of itself (p. 57). The author's laying bare of the supposed contradiction in the actual infinite by the remark (p. 58) that such an infinite "is both equivalent and not equivalent to a proper part of itself," rests on a confusion between Cantorian "equivalence" (one-one correspondence) and equality (or identity). Of course, aided by this confusion, it is easy to prove that an actual infinite implies that a mile is a metre (p. 105).

Against Bergson, who maintains that the discrete is an appearance, the author maintains (*cf.* pp. 121-123, 129) that reality is essentially discrete and continuity is only a metaphysical chimera. It appears that M. Bergson is in the unhappy position of disagreeing with both finitists and infinitists.

Pages 133 to 172 are occupied with notes which contain fuller accounts of the views of some of the writers whom the author mentions in the body of the book, and others. It is relevant to mention that it has long been recognised that the idea of what is called, for the sake of analogy or picturesqueness, a "variable" finite really assumes an actually infinite class of finite and not variable things. No number is variable: mathematicians, when they want to say something about *any* finite number (*any* member of the infinite class of finite numbers) speak, in this case as in some others, of a "variable finite number".

PHILIP E. B. JOURDAIN.

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VII.—PHILOSOPHICAL PERIODICALS.

PHILOSOPHICAL REVIEW. Vol. xxi., No. 4. **A. W. Moore.** 'Bergson and Pragmatism.' [(1) Bergson, like the pragmatists, has an instrumental theory of knowledge. But he sets out by treating the distinction and relation between immediate and reflective experience, not as functional, indigenous and reciprocal, but as ontological, accidental and moving in one direction. The result is (witness the treatment of spirit and matter, of instinct and intelligence, etc.) that nearly every important category is forced, in his system, to play a double rôle. (2) Bergson again comes into contact with pragmatism in his anti-intellectualism. But his intuition vacillates from cognitive to impulsive and back again; while he fails to see that the selection and construction of units and elements in the procedure of science involves the very sort of intuitive appreciation for which he contends and which he seeks elsewhere.] **F. Thilly.** 'The Relation of Consciousness and Object in Sense-perception.' [In cases where a real object is involved, (1) what is the relation between the real and the perceived object with respect to their numerical identity at the moment of perception? Modern realism upholds this identity, and offers novel theories of perception: Montague regards perceived objects as true parts of the material world, but as the intermittent products of the relation between particular organisms and the world; Woodbridge thinks that the organism provides a centre for the interplay and co-ordination of the varied differences in the world without allowing these differences to lose their specific characters. Such theories are open to immanent criticism, while they satisfy the requirements neither of natural science nor of epistemology. (2) What is the relation with respect to the possibility of the existence of the real object at other moments apart from perception? Dewey, Montague and Woodbridge find no difference between the perceived and the unperceived objects. But the fact is that, in perception, the entire self is more or less in action; and we are forced to believe that the mind has something to do with the way in which the object figures in the perceptual situation.] **G. H. Sabine.** 'Descriptive and Normative Sciences.' [Discussion of Husserl. (1) Not even the 'descriptive' sciences rest upon a purely theoretical interest. For whatever may be the motives of the individual thinker, science itself is a social product and a social institution, and is always being judged at the bar of human life. (2) The sciences of the 'absolutely existent' are sciences which, by the nature of their abstractions, regard their subject-matter as made up of timeless entities existing in an eternal row; but even here, the normative character of thought appears in the ideality of the laws which standardise the crude matter of fact. Since in the humanistic sciences the place of valuation is clear, the writer concludes that all sciences are rather normative than descriptive.] Discussion. **W. H. Sheldon.** 'Consistency and Ultimate Dualism.' [Reply to Creighton. The axioms of system and of independence must be applied to these axioms themselves; they must be regarded both as interpenetrating and also as externally conjoined. We are thus able to combine the mutual implication

of idealism and realism with their externality and indifference.] *Reviews of Books. Notices of New Books. Summaries of Articles. Notes.*—Vol. xxi., No. 5. **O. Ewald.** 'Philosophy in Germany in 1911.' [Contemporary philosophy is trying to reconstruct the universalism of antiquity; yet the synthesis between epistemology and metaphysics—whether in transcendentalism, pragmatism or intuitionism—is still undiscovered. The author comments on the Bologna Congress, *Bauch's Studien zur Philosophie der exakten Wissenschaften*, *Kelsen's Hauptprobleme der Staatsrechtslehre*, *Reininger's Philosophie des Erkennens*, *Kraft's Erkenntnisbegriff und Weltbegriff*, *Vaihinger's Philosophie des Als Ob*, *Lask's Logik der Philosophie*, and other works.] **A. O. Lovejoy.** 'The Problem of Time in Recent French Philosophy. III. Time and Continuity: Pilon, James.' [Pilon merely eliminates continuity from the idea of time; what remains is, he says, true to experienced duration and succession. Bergson eliminates from the idea all attributes of quantity and number. The author agrees with Pilon that experienced time consists of simple discrete units with no succession or transition directly given or intuited. This view removes the paradox of the simultaneity of the successive; denies that we experience a pure transition not composed of 'states'; and avoids the summation of an infinite series. Bergson's difficulties thus disappear. As for James, we find in his writings three distinct theories of time: the third, which is chiefly emphasised, though it is formally antithetical to the second and irreconcilable with the first, is identical with that of Pilon and the writer.] **G. H. Sabine.** 'Prof. Bosanquet's *Logic and the Concrete Universal*.' [In his new edition, Bosanquet not only gives a finished presentation of the 'concrete universal,' but also criticises adverse doctrines. Yet these doctrines lay stress on phases of the reasoning process which the theory of coherence tends to minimise. Realism, e.g. rests its case on the obvious fact that "every problem does have its solution". Pragmatism, again, emphasises the determining rôle of the *Aufgabe* in the guidance of the other processes in the thought-complex. And this raises the broader question of the place of selective attention in our experience, a question which Bosanquet neglects. Finally, the coherence theory ultimately breaks down, since it represents truth as an eternal effort to do something which it can never fully accomplish.] **E. L. Schaub.** 'Hegel's Criticisms of Fichte's Subjectivism, I.' [Fichte's fundamental principle has been interpreted as the empirical human ego; as the formal or subjective element in experience; as the principle of critical rationalism; as the abstract ego of pure self-consciousness; as the subjective subject-object; as the principle of a subjectified Spinozism; and as Schelling's principle of identity and Hegel's Idea. Hegel's criticisms, while not excluding the fourth and sixth interpretations, are essentially an elaboration of the fifth.] *Reviews of Books. Notices of New Books. Summaries of Articles. Notes.* **A. W. Moore.** 'Prof. De Laguna on "The Chicago School".'

PSYCHOLOGICAL REVIEW. Vol. xix., No. 3. **E. L. Thorndike.** 'The Curve of Work.' [Criticism, in the light of experiments, of Kraepelin's analysis of the curve of work. On the objective side, (1) two hours or less of continuous exercise of function at maximal efficiency give a fatigue-effect (temporary negative effect curable by rest) of 10 per cent. or less. (2) The permanent practice-effect is much less than that of an equal time distributed in fractions over a week or more. (3) There is a rise of efficiency near the end (end-spurt) of approximately 4 per cent. when the term of the exercise is known. (4) There is great fluctuation during a work-period; but in the case of mental multiplication, addition, marking

words, etc., there are no uniformities explicable by warming-up, spurt after fatigue, spurt after disturbance, habituation, rhythm of attention. The curve of work, freed from daily eccentricities, tends under the author's conditions to be a horizontal straight line. On the subjective side, Kraepelin's analysis of the curve, as the result of a compounding of forces, illustrates the danger of speculative *ex post facto* interpretation; it is "highly improbable in almost every one of its main features".] **C. E. Ferree and G. Rand.** 'Coloured After-image and Contrast Sensations from Stimuli in which No Colour is Sensed.' [Report of experiments suggested by theoretical interest in the Purkinje-Brücke phenomenon, and prompted more directly by the recent work of Thompson and Gordon, Fernald, and Titchener and Pyle. (1) A perceptibly coloured after-image may be obtained from a subliminally coloured stimulus if an unfavourable brightness-quality is fused with the stimulating colour and a favourable one with the after-image colour. In central vision the brightness factor may be regulated either by decrease of general illumination or by modifying the stimulus-colour by objective mixture, contrast, or after-image. In peripheral vision, owing to the increased sensitivity of the retina both to achromatic after-image and contrast, and to chromatic adaptation and after-image effects, the obtaining of the coloured after-images is comparatively easy. (2) It is especially easy to arouse G, GB and B as contrast sensations, when the inducing stimuli are subliminally coloured. Decrease of illumination first obscures R, O, and Y; it also enormously enhances the induction of a contrast colour, and particularly of the colours G, GB and B. (3) The Purkinje-Brücke phenomenon is currently explained both as after-image and as contrast; the writers incline to regard it, with Brücke, as due to an after-image of a previous contrast-sensation; in any case, coloured effects are produced by stimuli in which no colour is sensed. The authors conclude that the whole field of functional connexion between chromatic and achromatic processes deserves further study.] **K. Dunlap.** 'A New Laboratory Pendulum.' Discussion. **E. P. Frost.** 'Can Biology and Physiology Dispense with Consciousness?' [We should ask, not if animals are conscious, but rather if their behaviour indicates consciousising; the consciousising process is all process or change in so far as it involves a reference to the past experience of the animal, and a modification of (otherwise rigid) behaviour in terms of that experience; its recognition, as distinct from conscious state, enables us to reconcile the views of comparative psychologists with those of Bethe, Loeb, von Uexküll, etc.]

PSYCHOLOGICAL REVIEW. Vol. xix., No. 4. **F. L. Wells.** 'The Question of Association Types.' [Quantitative study confirms the theory of 'association types'. In detail: a certain range of reaction-time seems characteristic of a given individual. In the Kent-Rosanoff experiment, individual differences are more marked in the tendency to common or specialised response than in association-time (extreme ranges 20:1 and 4:1). Definite fidelity to type appears, further, in the tendency to predicative, super-ordinate, contrastive and internal-objective responses; not in speech-habit reactions. In terms of correlation-measures, fidelity to type ranges between .73 and .86 positive.] **J. E. W. Wallin.** 'Experimental Studies of Rhythm and Time. III. The Estimation of the Mid-rate between Two Tempos.' [Experiments with metronome tempos. (1) If a variable is chosen between two fixed extremes (serial procedure), it proves to be less (slower) than the arithmetical mean, but bears no constant relation to the geometrical mean. Accuracy of determination shows considerable individual difference. The process of equating inter-

vals is a matter rather of reflective judgment than of direct sensation. The nearer the extremes, and the farther the variable from the mid-point, the earlier is the judgment formed. (2) If the mid-rate is estimated by tapping, it is again less (slower) than the arithmetical mean, but now lies nearer the geometrical than the arithmetical mean. Individual variations are greater and subjective evaluations less reliable than before. All observers have recourse to secondary criteria, and the judgments are mainly, if not wholly, of the reflective type. Nevertheless, response is prompter and less mediate than in the former method.] **J. E. Downey.** 'Literary Self-projection.' [Introspective reports of fourteen observers on the personal reference involved in the appreciation of poetic fragments read or heard. Self-projection may occur in non-empathic form; the visualised self may be a mere spectator of the imaged scene; and this projection may become empathic by fusion with projected kinæsthetic, factual or organic imagery. But the kinæsthetic experience need not itself be projected; or, if projected, may fuse with other visual imagery than that of the self. Again, the visual objectification may take form as a person not the self, or as animal or object. Kinæsthesia, objectified or not, may appear without visual accompaniment.] **D. O. Lyon and H. L. Eno.** 'A Time Experiment in Psychophysics.' [Electric shocks, applied at wrist and below elbow, fuse for a number of observers at an average objective interval of one-fortieth of a second. On the assumption that the nerve impulse travels even at the low rate of thirty-two miles per second, this time is three times too long. The authors discuss a number of possible explanations, laying most weight upon the view that the first stimulus may monopolise the observer's attention, whereby the apparent time of the second stimulus is set back. On the whole, they incline to think that a time-interval elapses between cortical process and ensuing sensation, and regard this result as bearing upon the doctrine of psychophysical parallelism. Vol. xix., No. 5. **G. F. Arps.** 'Introspective Analysis of Certain Tactual Phenomena.' [If two pressure stimuli are applied successively to a finger tip, the normal stimulus (constant in intensity, varying in duration) subjectively increases as the comparative stimulus (constant in duration, varying in intensity) actually increases. The assimilative effect varies with direction of series (method of limits) and with time-order (norm first is more favourable); it disappears at certain limiting points of the series; there is an optimal period both for normal and for comparative stimulus. Reduction of the stimuli to a momentary duration destroys the assimilation.] **K. Gordon.** 'Æsthetics of Simple Colour Arrangements.' [When large and small colour-masses are together in the field of vision, a peripheral disposition of the large is the more agreeable; and, whether the background is light or dark, brighter colours are preferred near the centre, darker toward the periphery. If central and peripheral masses are equal in size, and if the background is light with a dark frame, a dark colour is preferred at the centre. If colours are of equal brightness, long-wave hues are preferred at the centre. Individual preferences appear, but do not neutralise these uniformities.] **C. E. Ferree and G. Rand.** 'An Optics-Room and a Method of Standardising its Illumination.' [Description of a room whose illumination may be varied in small steps from the intensity of a south-exposure skylight to the darkness of a moderately good dark-room. Daylight-illumination is standardised by means of the brightness-induction of the peripheral retina; specifically, by the inductive action of a white screen upon a stimulus of no. 14 Hering grey at 25° in the temporal meridian, referred to an average of measurements obtained on a number of days ranging from light to dark. Illustrative results are given (a) of this method of standardisation, with green and blue stimuli, and (b) of the methods

usually employed; the former are by far the more accurate.] **J. E. Winter.** 'The Sensation of Movement.' [Repetition and variation of Pillsbury's experiments; determination of liminal elbow-movements, normal and with current through upper and lower arm, elbow, wrist and hand; four speeds were used. A current through the wrist reduces sensitivity as much as a current through the elbow. Introspections with electrical stimulation are scattering; if ether is applied to finger-tips and ball of thumb, the sensation is definitely localised in muscle and tendon. There is, then, no evidence for the view that the articular surface is the seat of the movement-sensation; and as the histologists find no sense-endings there, Pillsbury's reference of the sensation to muscle and tendon may be accepted.] **R. MacDougall.** 'Mind as Middle Term.' [The psychologist's standpoint is subjective but not qualitative, relational but not objective. Consciousness must remain the final point of reference, else the province of psychology is simply divided between physiology on the side of stimulus and biology on the side of reaction. The psychologist must maintain the substantial existence of the mental system as his primary field of work, and its primacy as an interpretative criterion in the treatment of its physical correlations. Habit, e.g., comes into psychology simply in virtue of the necessary relation to the selective and organising activities of consciousness which is predicated of it. Biology stands to psychology to-day as physiology stood a few years ago; and psychology will be enriched by the contact; but it dare not lose sight of its fundamental reference to the forms and values of consciousness.] Discussion. **K. Dunlap.** 'The Case against Introspection.' [Exposition and critique of the theories of James and Stout. There is no evidence for 'introspection' as the observation of 'consciousness'. We might keep the term for the observation of 'inner' facts (feeling, kinaesthesia, coenesthesia), but it is probably better to banish it from psychological usage.]

AMERICAN JOURNAL OF PSYCHOLOGY. Vol. xxiv., No. 1. **R. Dodge.** 'The Refractory Phase of the Protective Wink Reflex: the Primary Fatigue of a Human Nervous Arc.' [Description of experimental technique. The reflex has a very low latency, averaging 30"; the records show no absolute refractory phase.] **E. O. Finkenbinder.** 'The Curve of Forgetting.' [Experiments with censored nonsense-syllables: 14 observers, 11 intervals (7 within the first 24 hours) between learning (by continuous reading) and relearning. Absence of free reproduction does not mean complete obliviscence; no single type of imagery is distinctly better for learning or remembering; quick learners may remember more than slow; the curve of forgetting resembles that of Ebbinghaus; but, under the new conditions, forgetting proceeds more slowly than Ebbinghaus, and more quickly than Radossawljewitsch found.] **L. J. Martin.** 'The Electrical Supply, and Certain New Additions to the Laboratory Equipment, in the Stanford University Psychological Laboratory.' [Electrical supply; colour mixer; adjustable discs.] **F. L. Wells.** 'Practice and the Work Curve.' [The favourable effect of practice may be considered as an increased response to *Anregung*, showing itself (1) as better endurance in the single work-curve (addition test); or (2) as an increasingly favourable effect of the pause (tapping test). In (3), the number-checking test, this effect does not seem to be general.] **T. L. Smith.** 'Paramnesia in Daily Life.' [From a study of forty-five cases paramnesia appears to be reducible to a partial amnesia of the associative processes. One or more impressions may drop out, or associations of time and place may be lost. In the latter event, subjective and objective conditions may be confused, or the detached images may enter

new complexes unrecognised.] **E. K. Strong.** 'A Comparison between Experimental Data and Clinical Results in Manic-depressive Insanity.' [Report based on 16 sets of data (5 tests) from 11 female subjects. To give a sample of the results: depressives (4) are characterised by slowness in cancellation and distraction tests; manic cases (5 out of 6) give in the association test many individual reactions and long times.] **C. A. Ruckmich.** 'The Use of the Term *Function* in English Text-books of Psychology.' [Mind is still considered, in most cases, as an active and purposeful 'organism'. Few writers use the term 'function' consistently.] Discussion. **E. B. Titchener.** 'Professor Martin on the Perky Experiments.' Book Reviews. Book Notes.

THE INTERNATIONAL JOURNAL OF ETHICS. Vol. xxiii., No. 2, January, 1913. **R. M. MacIver.** 'Do Nations Grow Old?' [The popular notion that nations do grow old and die receives scientific support from the vicious 'social organism' theory of Herbert Spencer. But this notion is superficial and false. The fact that a society lives does not make it necessary that it should die. By 'society' in this paper is meant not a 'partial association' e.g. a church or trade-union, but an 'integral community,' one "which is a real focus of social life". The normal complex society in this sense has no birth and no death. History corroborates this. Societies do not die, because their life consists in spirit and will.] **J. Laird.** 'Value and Obligation.' [This paper discusses the relation between two fundamental questions of Ethics—"What do we mean by calling anything good? and, Why ought we to do this or that?" The connexion between these questions is synthetic. 'Good' covers a wider field than Ethics, 'ought' a narrower one. (1) In predicating the adjective 'good' of anything, we imply approval. Approval is an attitude neither of mere feeling nor mere desire. It is a reflective judgment of value, which implies claims of objectivity, universality, impartiality and authority. These claims are not satisfied by feelings or desires, but require cognition. (2) Moral worth, exhibited in the sphere of conduct, implies responsible behaviour and deliberate choice of the morally right or wrong. That which is morally right and that which a man ought to do are one and the same. The notion of obligation is not prior to that of value.] **H. B. Reed.** 'The Combination versus the Consumer.' [Two assumptions are made by the traditional doctrine of the economists that in a competitive system the principle of charging what the goods will bear in an open market brings a fair price. It assumes that there is fair competition and that there is an open market. Neither assumption is justified. It is therefore the duty of the State to determine fair prices, especially where monopolies exist. The fair price should be decided not merely by the judgments of common-sense, but by a scientific calculation of the 'needs of the monopoly'.] **Charles W. Super.** 'Some Weak Points in Ancient Greek Ethics.' [An examination of Greek history and literature discloses many defects in the Greek character.] **J. Dashiell Stoops.** 'The Institutional Self.' [The Self is not to be conceived in Spencer's individualist fashion. In its development we may trace a three-fold movement. At first it exists as the 'objective group self'. From this, through reflexion, develops the exclusive introspective inner self. Lastly, the reconstructed social institutional self embodies itself in social institutions. This social self is the goal of evolution.] Book Reviews. Books Received.

REVUE DE PHILOSOPHIE. Septembre-Octobre, 1912. 'Religious Experience in Catholicism.' [Under the head of Documents are given four lengthy expositions of the cast of spirituality proper to four Religious Orders, the

Benedictine, the Franciscan, the Dominican, the Carmelite, respectively. These expositions can convey little meaning to one who is not familiar with the members of these Orders actually living. There follow under the head of theory: **J. Pachén**, 'Reflections on the Method of Religious Psychology'; **G. Goyan**, 'Social Expansion of the Love of God'; **J. Maréchal**, 'Certain Distinctive Marks of Christian Mysticism'; **H. Pinard**, 'Internal Experience in Catholicism'; Of these, the first and third are highly technical; the second argues the two-fold nature of the precept of charity; the fourth, the untrustworthiness of excited feelings away from formulas of faith.] 1^{er} November, 1912. **P. Duhem**. 'Nature of Mathematical Reasoning.' [In opposition to H. Poincaré 'we think to have sufficiently established that mathematical demonstration is pursued by way of syllogism exactly like any other deductive science.'] **A. Gemelli**. 'Psychology and Pathology.' **M. Sérol**. 'The End of Man According to William James.' [The end, to labour for the salvation of the universe, without assurance that one shall ever see such salvation, or that it ever shall be achieved at all, is ill-adapted to the legitimate aspirations of humanity, is ineffective as a stimulant, and rests on a defective system of empiricism.] **M. Gossard**. 'The frontiers of Metaphysics and the Sciences.' [It cannot be said that Metaphysics are useless for reading correctly the Book of Nature.]

REVUE DE PHILOSOPHIE. 1^{er} Decembre, 1912. **G. Melin**. 'The Family and Evolution' [An exposition of M. Letourneau, *L'Evolution du mariage*: free divorce, as a thing that must come in the name of evolution and science.] **A. Diès**. 'The Question of Hippocrates.' [Littre and the remark of Plato, *Phædrus*, 270 E.] **Mgr. d'Hulst**. 'Lectures on the Existence of God.' [Summary of Lectures given at the Catholic Institute of Paris in 1881-1882. Principle of Causation. The succession of phenomena is not everything. 'A Law is not a Cause.'] 1^{er} Janvier, 1913. **J. Pacheu**. 'Mystic Love Described and Sung of by Jacopone de Todi.' [Giacomo Benedetti, called Jacopone de Todi from the place of his birth, was a Franciscan poet, A.D. 1230-1306. He lost his young wife by an accident at a dance. Recovering from the shock, he became a friar and an ecstatic bard.] **G. Melin**. 'The Family and Evolution.' [It serves the purpose of a theory to affirm that the human race has been evolved from savagery. Yet not one instance is known to history of a savage tribe civilising itself. Left to himself, the savage is unprogressive, e.g., the pygmies. Where countries have been civilised, it has been by a stronger race coming in and driving out the inferior. The accounts of savages on which writers like Herbert Spencer rest their conclusions are utterly untrustworthy. Savages are not known by cursory acquaintance, but by living with and becoming intimate with each tribe in detail, and publishing results in a monograph. Primitive savagery is not founded on history, nor has primitive promiscuity the warrant of careful monographs. The article is a challenge to the dominant anthropology, and is worth considering.] **J. Builliot**. 'Is a Change Needed in the Direction of Neo-Scholasticism?' [This the title of an article by A. Gemelli in the *Rivista di Filosofia Neo-Scholastica*. The Italian writer deprecates as uncalled for the attention given to physical science by the Louvain school, thinks that pure Thomism does not need it, but would have Thomism itself pass through Idealism, learn something from Hegel, and go beyond him. His French critic holds St. Thomas and Hegel not to belong to the same line of descent.] **E. Baron**. 'Contemporary English Idealism.' [Green, Caird, Bradley.] 1^{er} Fevrier, 1913. **P. Charles**. 'The Metaphysics of Kantism, the Thing in Itself.' ['The Thing in Itself is real or it is not. If it is not,

it is indistinguishable from Nothingness ; if it is, it is indistinguishable from the phenomenon. All the ambiguity rests in the double meaning of the word real. If it is taken to mean the pure category, it is quite true that the Thing in Itself is real, but it is false that it is indistinguishable from the phenomenon. If it is taken to mean the category schematised by the *degree in time*, it is quite true that the Thing in Itself is indistinguishable from the phenomenon, but it is inexact to say that there is still question of the Thing in Itself.' **S. Belmond.** 'The Scotist Univocity, its Foundations.' [Univocity here means that something, no matter how indeterminate, can be predicated univocally of God and His creatures. The metaphysical foundation of univocity is the position that the distinction between essence and existence in contingent being is not real, but a distinction of thought.] **P. Gény.** 'How to Present the Definition of Truth.' [A defence of the scholastic definition, *Veritas est adaequatio rei et intellectus*.] 1^{er} Mars, 1913. **J. Toulemonde.** 'The Art of Exercising Authority.' [Practical directions for a young man for the management of a class of boys. At first he must be strict, distant, dignified and somewhat mysterious. His tone of voice should be low, and he must not repeat his commands. When he has conquered, he may relax a little.] **P. Charles.** 'The Metaphysics of Kantism, the Categories.' [The category, void of all content, does not hinder our attaining to the reality in itself. The categories, as general conditions of all being that is thought of, are also general conditions of all being that exists or is possible. Kant is no more a subjective idealist than Aristotle.] **A. Valensin.** 'A Logic of Action.' [Conceivably, acts may imply acts as concepts imply concepts. Analysis of a work of M. Blondel on this subject.] **F. Pradel.** 'About the Method of Immanence.' [The Method distinguished from the pantheistic Doctrine of Immanence. Again M. Blondel and his interpreters, Valensin and de Touquédec.] **J. Le Rohellec.** 'The Theory of Passions in St. Thomas.'

REVUE DE PHILOSOPHIE. 1^{er} Avril, 1913. **A. Veronnet.** 'Hypothetical Cosmogonies.' [Kant's Theory of the Heavens, date 1755, anticipates Laplace.] **P. Charles.** 'The Metaphysic of Kantism.' [Space and Time, according to Kant, are not only in the mind, but also in things, not, however, in things as they are in themselves, but in things as they appear to us. A luminous and valuable article.] **A. Dies.** 'Critical Review of History of Ancient Philosophy.' [A bibliography, noticing among others A. Rivaud, 'Researches on Greek Anthropology,' W. Süss, 'Ethos, Studies on Greek Rhetoric,' and eight authors who discuss whether the genuine Socrates appears in Xenophon, Plato, Aristophanes, Aristotle, or the Minor Socratics. Of these L. Robin on the 'Memorabilia' is particularly depreciatory of Xenophon.]—Mai-Juin-Juillet, 1913. This monthly review has for once turned into a quarterly, forming a volume of 440 pages. It bears the title *L'Expérience Religieuse dans le Catholicisme*, and is well worth reading. Nearly 200 pages are devoted to Catholic Liturgy, of which those dealing with 'The Society of Jesus and the Liturgy' are of special interest, discussing as they do the bearing of the individualism of the Spiritual Exercises upon the social, liturgical spirit, of which the Benedictine Order in the Church is the great exponent. These are the contents : **A. Brou.** 'The Society of Jesus.' **J. Calvet.** 'St. Vincent of Paul.' **Mgr. Demimuid.** 'The First Ladies of Charity in the Seventeenth Century.' [Mary Gonzaga, Queen of Poland, the Duchess d'Aiguillon, and Mme. De Miramon.] **Mgr. Monestés.** 'The Curé d'Ars.' **J. Darnand.** 'A Converted Savage.' [Mataafa, King of Samoa.] **J. Bainvel.** 'The Inner Life of the

Catholic.' [Incorporation in Christ and the Church.] **J. Pacheu**, 'Mystics Interpreted by Mystics.' **C. Besse**, 'Catholic Religious Singing.' **M. Festugière**, 'The Catholic Liturgy.' St. Vincent, the three French ladies, the Curé (Blessed Jean Vianney), and Mataafa are all admirable pictures. **M. Bainvel** tells what a Catholic thinks and feels.

ARCHIVES DE PSYCHOLOGIE. Tome xii., No. 1. **A. Michotte**, 'Description et fonctionnement d'un nouveau tachistoscope de comparaison.' [Detailed account of the tachistoscope recommended in the *Technique* of Toulouse and Piéron, i., 1911. The instrument allows images of different objects to be thrown, by tachistoscopic exposure, upon the same retinal area at any required interval of time.] **G. Luquet**, 'Le premier âge du dessin enfantin.' [Children begin by making marks without any idea of delineation. A little later, they read a meaning into the scrawls thus produced; the meaning derives from analogy or from environmental suggestion. They next add details, intended to increase the resemblance of the drawing to the object represented; and they finally draw with intention. In the two cases cited, these four stages appear in the course of the third and fourth years.] **E. Claparède**, 'Un Institut des sciences de l'éducation et les besoins auxquels il répond.' [Recounts the genesis and aims of the Institut J. J. Rousseau, which will be opened at Geneva in the autumn, as a training college for teachers and a centre of educational research. The staff includes the names of Bovet, Claparède, Fehr, Guye, Millioud, Naville; courses will be offered in psychology, didactics, school hygiene, treatment of backward and abnormal children, moral and social education, history and philosophy of great educators, scholastic administration and organisations, etc.; investigations will be undertaken upon the development of the child, individual psychology, the technique and economy of work, methods of teaching, the psychology of the teacher, etc. Rousseau's 'functional' idea of education will be the guiding principle of the institute.] **A. Chojecki**, 'Comparaison de quelques processus psychiques dans l'hypnose et dans la veille' [Comparative experiments upon the repetition of series of numbers, the memorisation of nonsense syllables, and the time of association, made with five subjects, prove that hypnosis tends to reduce intellectual activity. [Recueil des faits: Documents et discussions. **H. Piéron**, 'A propos des phénomènes psychoélectriques.' **W. Radecki**, 'Réponse.' [Claim of priority: criticism and reply.] Bibliographie. [Review of works upon sleep.]

ARCHIVES DE PSYCHOLOGIE. Tome xii., No. 2. **O. Decroly** et **J. Degand**, 'Observations relatives à l'évolution des notions des quantités continues et discontinues chez l'enfant.' [Review of previous observations; experiments on a little girl from the fourteenth to the fifty-seventh month. The child at first uses the names of numbers in a purely mechanical way; then with a view to seriation, without counting; then for counting. Before she can count, she has an idea of the constitution of groups; and there is a preliminary stage in which she notes simply the presence or absence of objects. The authors show that 'two' is employed numerically earlier than 'one'; they are able to date the first use of 'three,' 'four,' and 'five'; they also trace the understanding and employment (first practical, later speculative) of the question 'how many'? These and other results are conveniently summarised in a two-page chart or table.] **V. Cornetz**, 'De la durée de la mémoire des lieux chez la fourmi "Myrmecocystus cataglyphis bicolor".' [The worker ants appear to possess a visual memory of isolated spots in the immediate neighbourhood of the nest; this memory is, however, weak and fickle,

and thus stands in sharp contrast to the olfactory memory. For the so-called homing instinct, which is really a memory of the axis of equilibrium, the reappearance of a direction, the author prefers Bonnier's term 'sense of attitude' to Piéron's 'muscular memory'. The paper gives a number of tracings, drawn to scale, of the ants' journeys from and to the nest.] **E. Cramausse.** 'Le sommeil d'un petit enfant: troisième série d'observations.' [Continued from x. 4, xi. 2; account of the sleep of a baby girl in the second six months of her life. (1) *Normal sleep.* In night-sleep, the course of pulse and breathing is slower, gentler, more regular, often shallower; in day-sleep, the movements are more abrupt and irregular, the reactions quicker, stronger, less differentiated. After a careful analysis of the curves, the author passes to the sigh, which he finds to be at once a safeguard and a means to the improvement of sleep. 2. *Experiments.* Stimuli, according to circumstances, have various effects on the sleeping organism: they may 'saturate' it, inhibiting the effect of later stimuli; they may work by summation; they may reinforce one another as if by multiplication; they may act independently, each for itself. The common result is a state of general irritability. Nevertheless, if things have not gone too far, the later sleep is 'consolidated': insensibly, when the stimulation is continuous, after certain reactions (sigh, etc.) if it is discrete. The organism grows increasingly selective; the child is never wholly asleep; and so there is a growing disproportion between the physical importance of the disturbance and the extent of the reaction. (3) *Conclusions.* There are three types of mental activity during sleep. The first is what we may call, for want of a better name, instinctive; it is adaptive and protective. The second involves states which approximate those of the ordinary waking life; but there are differences; affective experiences, e.g., are of brief duration and of circumscribed extent. The third, that of the dream, plays but a small part at this stage of life. There is some evidence, further, that the thought of the sleeper imitates that of the waking life, and profits by its organisation.] Bibliographie. [Review of recent psychology of animals, by E. Claparède.] Notes diverses.—Tom xii., No. 3. **L. Schnyder.** 'Le cas de Renata; contribution à l'étude de l'hystérie.' [History and description of a case of hysteria; treatment and cure. The author thinks that the rôle of psychical traumas has been exaggerated, and that the mental breakdown is often attributable to an emotional situation of long standing. Psychoanalysis is valuable in certain cases; but it is not indispensable to psychotherapy; and the Freudians run the risk of absolutism. Success in the present instance was largely due to revelations made by way of (automatic) writing; many patients will write more freely than they talk.] **E. Claparède.** 'Les chevaux savants d'Elberfeld.' [Report of a visit to Herr Krall, and description of tests. Trickery is ruled out; explanation by involuntary signs (Pfungst's experiments with von Osten's Hans) is, the writer believes, equally out of the question; the appeal to telepathy or to an unknown sense gives up the problem; there remains the hypothesis that the horse possesses intellectual rudiments, *Anlagen*, which may be actualised by special training. This hypothesis is canvassed pro and con, and we are left with a *non liquet*; decision is impossible in default of systematically controlled experiments. An appendix contains the opinions of other scientific men who have witnessed the performances.] **R. Weber.** 'La faculté de lire est-elle localisée?' [Certain brain-areas may be regarded as organs; their function is stable. But there are also 'centres' or 'areas' which are formed by education, moulded by function itself. When we read, e.g., the nervous route passes from eye to visual cortex, and thence by way of auditory to motor centre; the auditory

centre, owing to our mode of instruction, has the predominance, and we can think only in words. In a case of peripheral blindness, the central paths from visual to auditory centre are intact but unused; reading (aloud) is mediated by touch; destruction of the cortical area for the right arm would render the patient alexic and agraphic. The case carries therapeutic suggestions.] *Recueil de Faits: Documents et Discussions.* **C. Werner.** 'VII^{me} Réunion des Philosophes de la Suisse Romande, Rolle, 20 juin 1912.' **M. F. Washburn, E. Claparède.** 'A propos de l'adaptation aux circonstances nouvelles.' [The action of the kitten, instanced in Claparède's study of Bonnet, which jumps on the table for its saucer of milk after being accustomed to drink on the floor, may be explained in mechanistic terms, if we remember that the animal does not analyse the complex of stimuli, but reacts to the total situation. Claparède replies that the instance was not, perhaps, well chosen; but that still a process of choice, determining the intelligence of the reaction, seems to intervene.] *Bibliographie. Notes diverses.*

ZEITSCHRIFT F. PSYCHOLOGIE. Bd. lxi., Heft 1. **W. Poppelreuter.** 'Nachweis der Unzweckmässigkeit die gebräuchlichen Assoziationsexperimente mit sinnlosen Silben nach dem Erlernungs- und Trefferverfahren zur exakten Gewinnung elementarer Reproduktionsgesetze zu verwenden.' [The Ebbinghaus-Müller methods are unsuited to the investigation of the simplest laws of reproduction, since they involve higher processes, *viz.* the voluntary determination of the learner. Introspection shows that learning implies a different attitude from reading; and experiments prove that the method of right associates, with regular instruction, gives three times as many hits as a corresponding method with instruction for free association. In detail the writer concludes that the method of right associates with 12-term series yields elementary associations only if the series are very firmly associated; that it is therefore wise to shorten the series; and that the reduction of 'will' to reproductive terms is a pressing problem.] **M. Rosenberg.** 'Zur Pathologie der Orientierung nach rechts und links.' [The notion of direction is grounded in the position and function of our sense-organs; 'before' is visual, 'behind' is auditory, 'right' and 'left' depend primarily upon differences of muscular, positional and tactual sensations. But the distinction of right and left, in the normal consciousness, has come to be a very complicated matter; and pathology shows various stages of its failure. (1) The patient knows that there are lateral dimensions, and knows that they are of opposite direction; but does not know which is the right and which the left. (2) Sensitivity and localisation are unimpaired, but the patient cannot tell to which side the stimulus is applied (Jones' dyschiria). (3) In cases of brain disease and senile atrophy, the disturbance of orientation may affect the whole body. Two cases are described.] *Literaturbericht.*—Bd. lxi., Heft 2. **F. Schumann.** 'Untersuchungen über die Wahrnehmung der Bewegung durch das Auge.'—1. **W. Lasersohn.** 'Kritik der hauptsächlichsten Theorien über den unmittelbaren Bewegungseindruck.' [Criticism of the three principal theories of the direct impression of visual movement: those of Exner (that we have a specific sensation of movement, a sort of movement-quality), of Stern (that the impression depends on the factors of changed stimulation, the after-image strip, and ocular movement), and of Linke (that the object is apperceived in one stage, but perceived in others, which still carry the consciousness of present experience; and that there is a simultaneous act of identification). Of these, Linke's is farthest from, Exner's nearest to the truth; if there is no sensation of movement, there is a specific sensory something, which calls for further study.] *Literaturbericht.*—Bd. lxi., Heft 3 und 4. **M.**

Wertheimer. 'Experimentelle Studien über das Sehen von Bewegung. [A very careful study of the direct visual impression of movement produced by the exposure, at a brief interval, of two differently placed stimuli (horizontal lines above and below, vertical and horizontal, etc.). Various methods were employed for single and for repeated observation; and especial attention was paid to the intermediate phases, between optimal movement-impression and discrete succession or fusion into a resting unit. In these phases it was found possible to dissociate the direct impressions of movement and of identity; to secure separate movements of the two members of the stimulus; to secure movement of the one member, while the other was seen at rest; to get the impression of movement without recognition of the position of one or even of both stimuli; and so on. The effect of attention and of predisposition was also studied. In conclusion the author reviews the theories already proposed (after-image, ocular movement, illusion of judgment, fusion of stimulus-contents, form of combination, attention), and finds them all wanting. He offers a physiological theory of cross-connexion: given two functionally neighbouring areas or points, which are stimulated in quick succession, and there will be a short-circuit of excitation, a specific nervous 'passage' (*ein spezifisches Hinüber von Erregung*) between them; this cross-connexion then shows itself in consciousness as the direct impression of movement.—The course and outcome of the research remind the reader of Wohlgemuth's work on the after-effect of seen movement; this is not mentioned by the author.] **K. Koiffka.** 'Eine neuer Versuch eines objektiven Systems der Psychologie; Betrachtungen zu L. Edingers Theorie der nervösen Zentralorgane.' [According to Edinger, the human brain is an organ of three levels: the paleencephalon, or receptive-motor mechanism; the neencephalon, or gnostic-practical mechanism; and the association centres, or organ of intelligence. We may agree with him that the first of these operates, in man and animals, without consciousness. He himself finds no need to attribute consciousness to the neencephalon; and the interaction of this with the association centres is so complex that the question is not easy to decide; yet it seems certain that there is a gnostic-practical consciousness. And if in man, then also probably in animals; though in neither is every gnosis or every praxis attended by consciousness.] Literaturbericht.

ZEITS. FÜR PSYCHOLOGIE. Bd. lxi., Heft 5 und 6. **L. J. Martin.** 'Die Projektionsmethode und die Lokalisation visueller und anderer Vorstellungsbilder.' [An elaborate study (pp. 225) of mental imagery. Part i. reports preliminary observations taken by the author's method of projection. Typically, this method consists in the presentation of a visual object (vase, postcard); in the fixation of the object by the observer, with the view of obtaining an image; and in the subsequent projection of this 'image of presentation' or 'memory-image' upon a surface in the neighbourhood of the object. Image and object may thus be compared as regards colour, form, size, plasticity, etc. The method is to be preferred to that of the questionnaire, since the untrained observer who replies to questions concerning visual imagery may confuse visual knowledge with actual vision, and has no standard for the intensity of his images. Incidentally, the author analyses the Fechnerian memory after-image into positive, after-image and memory-image; fails to find the differences obtained by Perky between memory-image and image of imagination (the methods, however, are very different; institutes on her own behalf a comparison of these two images; and applies the method of projection to certain æsthetic problems, to the study of illusions, to mass-experiments, and to auditory images. Part ii. deals with the localisation of images.

Five sets of visual experiments were performed, in light and dark rooms ; and twelve types of localisation were distinguished. These reduce to seven classes : localisation in front of the observer, outside of and within the room ; behind the observer ; in a separate space, not identical with that in which the object is placed ; in the head or eyes of the observer ; spontaneously varying localisation ; unknown localisation. The origin, content, development, duration and characteristic features of the images, as well as these modes of localisation, are discussed in detail ; control experiments are made by the regular method of projection ; the localisation of abnormal visual images is compared with that of normal ; and a brief note is added on the localisation of non-visual images. The author writes throughout with reference to mental pathology, and pays constant (and usually polemical) regard to previous work. An Appendix summarises the evidence afforded by the experiments for imageless visual memory and imagination.] **F. Schumann.** 'Notiz.'—Bd. lxii., Heft 1 und 2. **G. Heymans** und **E. Wiersma.** 'Beiträge zur speziellen Psychologie auf Grund einer Massenuntersuchung. vii. Die selektorische Wirkung der Ehe.' [(1) A study of the questionnaire returns relating to 553 married and 498 unmarried persons of the same generation shows that marriage exerts a selective influence ; neither the theory of improvement by marriage nor that of degeneration through celibacy is adequate to the facts. (2) The possessors of attributes already subject to selection are selected on the ground of other attributes in accordance with the principle of Weber's Law. (3) The returns show per generation an increase of morally valuable and a decrease of morally reprehensible attributes to the amount of 1 to 1·5 per cent. ; the figures are of the right order of magnitude.] **O. von der Pfordten.** 'Empfindung und Gefühl.' [Sensations are qualitatively distinct, have relative intensity, and possess also a vital component or vital variable, pleasure-pain. Külpe's arguments for the independence of sensory feeling are not valid ; and Stumpf's postulation of affective sensations is unnecessary. Feeling, on the other hand, is always of the same kind, and varies only in intensity ; it is, in fact, intensity, the intensity of ideas ; and it is relative, not like sensation, to the organism, but to the individuality ; it constitutes individuality, and is accordingly psychical or central, not psychophysical. The author makes some terminological proposals, and sharply criticises (with special reference to Stefanescu-Guanga) the Wundtian doctrine that feeling may attach to sensation.] **W. Frankfurter** und **R. Thiele.** 'Über den Zusammenhang zwischen Vorstellungstypus und sensorischer Lernweise.' [The methods of learning (*Einprägung*) that conform to type are the most favourable for retention ; they also furnish the subjectively most assured reactions. No relation can be made out between reaction time (or preparedness of memory-ideas for reproduction) and sensory type. The sensory quality of the reproduction is determined primarily by type, secondarily (and perhaps in nonconformity with type) by mode of exposition.] **Besprechung.** [**O. Selz.** Critique of Michotte and Prüm. *Étude expérimentale sur le choix volontaire et ses antécédents immédiats*, and reply to Ach.] **Literaturbericht.** Aufruf. [Formation of a Society for positivistic philosophy.] **Das Institut f. angew. Psychol. u. psychol. Sammelersuchung.** [Notice regarding collection of test-materials, etc.]—Bd. lxii., Heft 3. **A. Fischer.** 'Neue Versuche über Reproduzieren und Wiedererkennen.' [Experiments with nonsense-syllables, designed to answer the question whether and in how far there is an inner relationship between the processes of reproduction and of recognition : 'process' is employed in the technical sense of the Austrian school. The results show that recognition is not necessarily based upon a reproductive process

of any considerable degree of development. A minimal amount of subliminal reproduction may or may not be involved; but even if this is the case, other factors are essential. An apparatus of Witasek's is described, which permits the changing of syllables, while a series is in course of exposure.] *Literaturbericht*.—Bd. lxii., Heft 4. **K. Groos**. 'Untersuchungen über den Aufbau der Systeme: v., Die radikalen Lösungen.' [See *MIND*, xxi., 617. The first solution of a dualism is (a) its disjunction into two opposed radicalisms. Thus the Cartesian doctrine splits into spiritualism (Berkeley) and materialism (La Mettrie, with changed definition of 'matter'); the will-reason absolute of Schelling splits into panlogism (Hegel) and metaphysical voluntarism (Schopenhauer); the Zeus-Chronos of mythology splits into a static (Eleatics) and a dynamic (Heraclitus) conception of God; the God of Christianity becomes eternal substance (Spinoza) and pure development (Pragmatism); the dualism of good and bad becomes, for the past, the doctrines of original sin and of a golden age (Cynics, Rousseau); for the future, optimism and pessimism. (b) In other cases, the radicalism is confined to the one side only of the dualism. Thus, in the matter of a world-principle, the dualism of good and bad may become radical on the side of good: the alternative is a mixed good-bad, hardly a Satan; mechanism is opposed to mechanism and teleology, determinism to determinism and indeterminism, the many (Pragmatism) to the one and the many (Parmenides, Schopenhauer), sensualism (Protagoras) to sensualism and intellectualism (Plato, Kant); methodologically, too, psychology is opposed to a logicism which still falls back upon psychology. The paper ends with a criticism of the position of Cohen and the Marburg school.] *Literaturbericht*. Anzeiger des II. Deutschen Kongresses für Jugendkunde, Okt. 1912.—Bd. lxii., Heft 5 and 6. **W. Koehler**, mit Unterstützung von Prof. **H. C. Warren**. 'Bibliographie der deutschen und ausländischen Literatur des Jahres 1911 über Psychologie, ihre Hilfswissenschaften und Grenzgebiete.' [Three thousand two hundred and two titles, as against 2458 of 1910, and 3202 of the *Psychological Index*. The arrangement of this bibliography is now identical with that of the *Index*; and on the score of titles the *Index* has a slight advantage, since it has added a few references, distinguished by letters. Under these circumstances, it is strange that the *Index* can appear in May, the German bibliography only in October; and it seems that subscribers to the *Zeitschrift* should not be compelled to pay for a bibliography which they procure several months earlier. Even the initials lacking in certain *Index* titles are not supplied by the German compiler.]

ARCHIV F. D. GESAMTE PSYCHOLOGIE. Bd. xxiii., Heft 1 u. 2. **U. Josefovici**. 'Die psychische Vererbung.' [A preliminary survey of the whole field of mental heredity, resulting in the establishment of general psychological principles. The Introduction deals with questions of terminology (*Vererbung*=state transmitted or action of transmission; *Erblichkeit*=state which possesses the proved capacity of transmission), with the writer's programme, and with certain psychological objections. Part I. then discusses biological facts and theories: the use of teleological concepts; the epistemological basis of theories of heredity with special reference to Darwin, De Vries and Weismann; the inheritance of acquired characters; and the recent work on hybridisation. The writer refers the phenomena of heredity to 'least vital units. under the influence of 'vital forces' (=the interplay of certain physical and chemical energies); he emphasises the need of physiological guidance. As regards acquired characters, there are three possibilities: sudden change of the germ-plasm, leading to germinal selection, sup-

plemented by individual selection; parallel induction; and somatic influence of acquired engrams and their ephory upon the germplasm. Part II. deals with psychological views and theories: mental inheritance in man (sensation, feeling and emotion, higher mental complexes) and in animals (impulse, instinct); the arguments for and against a comparative psychology. The most important sections are those in which the writer outlines a plan of experimentation. He thinks it possible that psychical processes mendelise, though the law of psychical resultants (creative synthesis) may lead to the appearance of intermediate forms. Part III. sets forth the fundamental principles in terms of which mental heredity may be explained. These are the principle of psychophysical parallelism, and the principle of the continuity of psychical processes or of the conservation of psychical occurrence. The meaning of the term 'psychical' must, for purposes of explanation, be extended to cover processes more elementary than the psychological elements, whether these processes be considered as independent psychical *Anlage* in latent form or as functional manifestation of physiological processes.]

F. Nagel. 'Experimentelle Untersuchungen über Grundfragen der Assoziationslehre.' [Experiments and introspective observations on certain fundamental points of the modern doctrine of association. On the experimental side we note the following results. The learning of nonsense syllables, which have upon them associations set up in earlier series, is subject to associative inhibition; sense material is free of this influence. With syllables, place association is at least as effective as direct connexion; with sense material, localisation plays but little part. The impression of syllables is quickened by previous use of the components of the series; there is no such effect with sense material. The existence of indirect (skipping) association is very doubtful. With syllables the first reading, with sense material the second reading, has the greatest value for impression; in the former case, the initial and terminal components have an advantage, due in part to place association; in the latter, adaptation is involved. The effect of practice is far greater with the syllables. In distributing readings, attention must be paid to the interval between series as well as to the spacing of groups. On the introspective side we find discussions of place association, of recognition and the feeling of familiarity, and of total impression. Under the heading of Method the writer recommends a simple mode of exposition, adapted to the individuality of the learner; the requirement of trochaic reading does not guarantee a bimembral rhythmisation, and the trochee is not always adapted to the material used.]

E. Schroebler. 'Bericht über den ersten Deutschen Kongress für Jugendbildung und Jugendkunde zu Dresden am 6. 7. u. 8. Oktober, 1911.' Literaturbericht. [Sammelreferat. Vierkandt on *Psychologische Grundfragen der Mythenforschung*.] Einzelbesprechungen. [Scheinert on Meumann's *Vorlesungen*, I.; Vierkandt on Lehmann's *Aberglaube und Zauberei*; Anschütz on Paulsen's *Pädagogik*.] Referate. Berichtigungen. [Reply to reviewers by Michel and Brunswig.]

R. H. Goldschmidt. 'Alfred Binet.' [Gives a provisional bibliography.] 'Ueber das Denken der Naturvölker, i. Zahlen und Zahlgebilde.' [In studying the number-concepts of lower races, the investigator must give up his own mathematical ideas, which make all numbers abstract and all number-units equal, and must ask rather how his subjects think in the field of number, what their problems are, how their thinking grapples with the problems. A number may, e.g., carry an intrinsic reference to a certain material; a tribe that 'cannot count beyond three' may be able to deal with large numbers, given a particular arrangement or material or problem. Certain numbers acquire prominence, whether by

ease of unitary apprehension or by their frequent occurrence in nature; certain divisions are predetermined by the character of the whole; primitive arithmetical operations are not necessarily reversible; the number-series need not tend toward infinity; rough counts may replace numerical accuracy; a given number-system may, for various reasons, be unsuited for general application. These and other points are illustrated from savage and civilised usage; and the paper ends with an outline of instructions for the use of the anthropological inquirer.] **R. Mueller-Freienfels.** 'Vorstellen und Denken: zur Kritik der Begriffe von Reproduktion und Assoziation.' [What is usually termed the 'image,' or the 'reproduction of a perception,' is in reality a substitutive symbol, having the same conscious currency, but heterogeneous in kind; there are substitutive sensations, feelings and movements; of the latter, the movements of speech are the most important. There are true visual reproductions, though these differ both in intensity and in quality from the corresponding perceptions; there may perhaps be auditory images; but here the list ends. The biological function of the image is to mediate between perception and word-movement or word-sound; the imaginal idea has also an aesthetic sanction. Sensory memory is the basis of dreaming; motor memory underlies thought. The directive and connective element in our mental life is the imageless set (*Einstellung*: also called 'act,' 'intentional experience,' 'thought') which naturally issues in movement, and which is 'materialised' in the kinæsthetic feeling of activity. Further study of these 'sets,' of the 'consciousness of direction,' will yield psychological results of great value. The writer's psychology of thought leads him to a symbolistic theory of knowledge, which has many points of contact with pragmatism.] *Literaturbericht. Kursus und Kongress für Familienforschung, Vererbungs- und Regenerationslehre.*

ARCHIV F. D. GESAMTE PSYCHOLOGIE. Bd. xxiii., Heft 3 und 4. **G. Anschuetz.** 'Spekulative, exakte und angewandte Psychologie: eine Untersuchung über die Prinzipien der psychologischen Erkenntnis, I.' [Three problems arise in connexion with psychology: the discovery of facts and uniformities; the formulation of methods; and the more general question of the nature, limits and means of psychological inquiry. This third problem leads us to distinguish philosophy, which aims at an 'absolute' knowledge of the essence and being of things, from natural science, which is content with a 'relative' knowledge of their behaviour and interconnexion. Psychology differs from the physical sciences in that personal interests are difficult to eliminate, and the subject-matter is complex and comprehensive; it therefore opens the door to speculation. Characteristics of speculative psychology (Lipps, Cornelius) are difference of individual opinion, insistence on the 'inner experiment,' deductive or maieutic procedure, dogmatism.] **R. Mueller-Freienfels.** 'Beiträge zum Problem des wortlosen Denkens.' [(1) Thought is not necessarily dependent on language. It may be sublinguistic, as in experiences of search (looking round a room for the cause of a noise) or of trying to recall a face. It may be colinguistic, as in gesture, language or musical composition. And it may be superlinguistic, as in intuition or inspiration, the sudden fulfilment of latent predisposition; in this case language offers resting-places for thought, and serves to fix its result; but there is thought that is not linguistic, and a too ready flow of words actually hinders thinking. (2) A sustained course of thought is never wholly pure or imageless; but there are thought-passages which have no imaginal or verbal contents.] **E. Hirt.** 'Über empirisch begründete Bewertung der normalen und pathologischen Handschrift:

Tatsächliches und Prinzipielles.' [Much detailed work must be done before we can even come in sight of a graphology. We must begin with the simple and from that proceed to the complex; we must have recourse to experiment wherever possible; we must study the act of writing rather than its product. It is best to start out from the gross changes of pathology. Abnormalities of writing may be physiological, due to some defect of the physical mechanism; psychophysical, due to change in the working of the mechanism; or psychological. (1) The physiological basis of writing is discussed with reference to tabes dorsalis, traumatic cortical ataxia, Friedreich's disease. 2. Psychophysically the writer distinguishes a motor and a sensory type of writing. Experiments with the Kraepelin writing-balance, on simple rectilinear and curved forms, show that the pressure exerted increases with certain directions of movement, under the influence of rhythm, and at the end of a connected series of movements. 3. These and other results are brought into diagnostic relation with paralysis agitans, dementia paranoides, manic-depressive insanity and hysterical states.] **P. Koehler.** 'Beiträge zur systematischen Traumbeobachtung.' [Study based on some 600 records of the author's dreams. In general, the results confirm those of Hacker (xxi., 1). The chief points of difference are: that relations (especially temporal relations) between the dream ideas often appear in consciousness; that there are in dreaming determining tendencies and 'problems' (*Aufgaben*); that criticism of the dream contents is rather the rule than the exception; that feeling exercises an indirect influence upon the reproductive tendencies of impressions; that moods (especially with strongly æsthetic experiences) are possible; that a printed text of limited extent can be read off; and, on the other hand, that ideas are often unlike the corresponding perceptions of the waking life, and that visual ideas never take on a perceptual character.] **L. Chinaglia.** 'Über subjektive Ausfüllung von Raumteilen im Gebiete der Hautempfindungen: vorläufige Mitteilung.' [Under certain experimental conditions, outline forms impressed on the skin are perceived as areas. The writer inclines to the hypothesis that the filling depends upon a central process.] **E. Bleuler.** 'Die psychologischen Theorien Freuds.' [Reply to A. Kronfeld (xxii., 2 and 3), who makes a brief rejoinder.] **P. Menzerath.** 'VI^e Congrès belge de Neurologie et de Psychiatrie, Brugé, 30. Sept. und 1. Okt., 1911.' *Literaturbericht.* **H. Keller.** 'Die Aufmerksamkeitsliteratur im Jahre, 1909.' *Referate.*

ARCHIV F. D. GES. PSYCHOLOGIE. Bd. xxiv., Heft 1. **G. Anschuetz.** 'Spekulative, exakte und angewandte Psychologie: eine Untersuchung über die Prinzipien der psychologischen Erkenntnis, II.' [Psychological exactitude is a matter rather of method than of subject-matter. Exact, in this sense, is (or may be) the experimental psychology of the laboratory; the analytical psychology of custom, religion, art; the combined, observational and experimental psychology of defect, derangement, and of exceptional personalities. It follows that psychology must base its laws upon a large number of observations, and must work with highly differentiated concepts. Yet for this very reason it must have its unifying ideas; and one of the most fruitful is Fechner's idea of the 'collective object'. Under its constant aspect, the collective object covers, quantitatively, the laws of intensity, space and time; qualitatively, such things as ideational type, Binet's *cérités de groupe*, the fundamental tendencies of character. Under its variable aspect, it covers phenomena ranging from the simplest cases of practice, fatigue, recuperation, adaptation, to the complex laws of human development and degeneration (child and senile psychology).] **V. Benussi.** 'Stroboskopische Scheinbewegungen

und geometrischoptische Gestalttäuschungen.' [The author first restates his view that the conditions of illusion are, subjectively, a determinate apprehension of form and, objectively, the presence of factors that, with or without the intention of the observer, facilitate that apprehension; and summarises his disproof of the explanations of Brentano, Lipps, Pierce and Lehmann. He then reports a series of stroboscopic experiments, in which variants of the Müller-Lyer figure (expansion, contraction, rotation) and of the Zöllner pattern (rotation) are built up. He finds that apparent movements, such as might be expected from the development of the illusory figure, but have no basis of any kind in the stroboscopic phase-figures, occur whenever there is an unitary apprehension of form, and disappear again when attention is paid merely to the stroboscopic presentment. The theory is thus confirmed.] **F. P. Weber.** 'Über die Verbindung von Hysterie mit Täuschungssucht und die phylogenetische Auffassung der Hysterie als eine pathologische Steigerung (oder Erkrankung) tertiärer (nervöser) Geschlechtscharaktere.' [Hysteria may be regarded as a pathological enhancement or derangement, in either sex, of certain tertiary, i.e., nervous, female sex-characters. Hysterical malingering rests upon an instinct of deception acquired through natural selection by the weaker sex. It is possible that hysterical suggestibility is beneficial to those whose will-power is pathologically defective. The author finds no necessary contradiction between his views and those of Babinski, Freud, Janet.] **R. H. Goldschmidt.** 'Bericht über den V. Kongress für experimentelle Psychologie, Berlin, vom 16-19. April, 1912.' **E. Schroebler.** 'Bericht über die Ausstellung des Instituts für angewandte Psychologie und psychologische Sammelforschung auf dem V. Kongress für experimentelle Psychologie in Berlin.' Literaturbericht. **C. Seeberger.** 'Zur Psychologie der absoluten und der Programmmusik.' [Points out, with reference to Wagner, the difference between the sheerly dynamic effect of absolute music and the dramatic effect of programme music. The latter fails of its right purpose when it leaves the realm of the pictorial.] **E. Waiblinger.** 'Dur und Moll.' [Pear's results do not bear out Külpe's law that a cord fuses better than its inversion if the lower of the two component intervals fuses better than the higher; nor is the law itself adequate to the explanation of major and minor. In fact the major chord is based on a single tonic, while the minor is bicentral.] Referate. **I. Ioteyko.** 'Faculté internationale de Pédologie, Bruxelles.'—Bd. xxiv., Heft 2 und 3. **O. Kuelpe.** 'Wilhelm Wundt: zum 80. Geburtstag.' **G. Anschuetz.** 'Spekulative, exakte und angewandte Psychologie: eine Untersuchung über die Prinzipien der psychologischen Erkenntnis, III.' [The writer now comes to close quarters with the question of method, and decides that in psychology external observation and experiment, on the one hand, and introspection and phenomenology of the inner experience, on the other, are closely interwoven and mutually interpenetrating. Incidentally he prefers the method of tests to the Würzburg methods, and assigns a large part—propædæutic, auxiliary, systematic—to phenomenology. He then turns to applied psychology, which is justified in looking to practical results, without regard to consistency or theoretical foundation. Its chief domain is education, where it joins hands with physiology, pathology, hygiene, ethics; it is also closely related to medicine, though the author is not ready to divorce psychology from philosophy and to relegate it to the medical school. In practice, truly, we must not confuse philosophy with science; but a thorough grounding in both is our best safeguard; and psychological theory takes us direct to theory of knowledge, and so by a short step to metaphysics.] **W. Wirth.** 'Ein einheitliches Präzisionsmass der Ur-

teilsleistung bei der Methode der drei Hauptfälle und seine Beziehung zum mittleren Schätzwert.' [A methodological paper, largely in mathematical terms; Fechner's halving of the equal-judgments in the method of right and wrong cases turns out to be justified.] **T. Erisman.** 'Untersuchungen über Bewegungsempfindungen beim Beugen des rechten Armes im Ellenbogengelenk.' [A review of the results of previous work shows that renewed investigation is necessary. Experiments were made to determine the differential limen (special kinematometer; forms of method of limits) for active and passive movement; the numerical values are of the same order of magnitude, though the differential sensitivity for active movement is somewhat the higher. Sources of error are carefully worked out, and the introspective reports are summarised; in active movements muscular sensations play a larger part, and the wrist takes precedence of the forearm. Judgments of extent cannot be referred to judgments of time (duration and rate); in active movements the influence of time is very slight, in passive movements it is considerably greater. Introspection of the time-factors shows that these are not naturally regarded in such experiments; direct and indirect criteria of rate are found; and rate itself appears as an intensifying or clarifying of the specific impression of movement.] **F. M. Urban.** 'Hilfstabellen für die Konstanzmethode.' Literaturbericht. Einzelbesprechung. [E. Hirt on Bd. 1, Heft i. of the *Zeits. f. Pathopsychologie*, especially on W. Specht's Introduction.] Referate. **W. Reimer.** 'Berichtigung.' **W. Moede.** 'Erwiderung.'

ZEITSCHRIFT FÜR PHILOSOPHIE UND PHILOSOPHISCHE KRITIK. Band cxlvi., Heft 2, 1912. **A. Eleutheropulos.** 'Die Grundlage der Ethik.' **Fr. Maywald.** 'Über A. Meinongs Erkenntnistheorie.' **J. Paulsen.** 'Reiz und Empfindung.' **N. E. Pohorilles.** 'Der Vitalismus im Lichte der Prinzipienlehre Eduard von Hartmanns.' Rezensionen, etc. Band cxlvii., Heft 1, 1912. **Paul Schwartzkopff.** 'Sind nur Empfindungen wirklich?' **H. Hegenwald.** 'Die Gottesthatsache.' **Hugo Lehmann.** 'Glaubensbetrachtung und Geschichtsforschung in ihren Prinzipien.' **Peter Petersen.** 'Voluntarismus und Intellektualismus.' Rezensionen, etc. Heft 2. **Gustav Spengler.** 'Das Verhältniss der "Philosophie des Als Ob." **H. Vaihingers** "zu Meinongs "Über Annahmen." **Günther Jacoby.** 'Der Amerikanische Pragmatismus und die Philosophie des Als Ob.' **Otto Samuel.** 'Über diskursive Sophismen.' Rezensionen, etc.

SCIENTIA. RIVISTA DI SCIENZA. Vol. xiii., No. 27, January, 1913. **E. W. Maunder.** 'The Sun-Spots.' [Astronomical details on the cycles of sun-spot activity.] **M. Brillouin.** 'Propos sceptiques au sujet du principe de relativité.' [The theory of relativity ignores the ether, and we cannot do this, because electro-magnetic disturbances, unlike gravitation, require a finite time of propagation. The association of rigidity of the ether with perfect permeability to the motions of electrons or matter is an enigma. To avoid this enigma, the relativists propose to adopt for the electro-magnetic field the abstract and purely algebraic point of view which we adopt, in default of a better one, in gravitation, where we cannot find any velocity of propagation; then, having taken away every material support for radiant energy, they attribute inertia and weight to this energy. To put at the beginning of the theory the new principle of relativity which is based on a few electro-optical observations, and to extend it to the whole domain of natural science, is not physical but metaphysical.] **M. Smoluchowski.** 'Anzahl und Grösse der Moleküle und Atome.' [Physicists feel a certain discomfort when the

atomic theory is traced back to Leucippus, Democritus, and Lucretius. Modern physics is an exact science, and begins with Daniel Bernoulli (1738). The progress up to quite modern times is shortly described, and the article ends with the remark that hardly has physics attained to the solution of a fundamental problem of atomism when a number of other riddles arise.] **E. Rignano.** 'Che cos'è il ragionamento?' [A psychological study of the simplest and commonest form of reasoning with human beings; in a second article the evolution of reasoning will be considered, and in a third article a study of its higher forms will be made.] **F. Kühnert.** 'Die ideographische Schrift und ihre Beziehung zum Sprachbau im Chinesischen.' [Of great interest in connexion with the analogy of Chinese with modern symbolic logic. The stages in the development of Chinese characters are dealt with, and the pious wish is expressed that, when European civilization spreads to China, the language and writing will remain intact.] **R. Dussaud.** 'Le rôle des Phéniciens dans la Méditerranée primitive.' [The part was a great one from the points of view of both politics, commerce and general culture. The present article is mainly concerned with method: hitherto Phœnician history has been founded by means different from those by which Greek and Roman history has been founded.] Critical Reviews. **G. Marchesini.** 'La modernité des vues pédagogiques de Jean-Jacques Rousseau.' [On Rousseau's *Emile*, and in criticism of Lemaitre.] Book Reviews. General Reviews. [**S. Jankelevitch.** 'Nouvelles recherches expérimentales sur le cancer.' **R. Maunier.** 'Quelques ouvrages récents de géographie humaine.'] Review of Reviews. Chronicle. — Vol. xiii., No. 28, March, 1913. **M. P. Rudzki.** 'L'âge de la Terre.' [There are five methods for determining the age of the earth: (1) from geological data; (2) from the theory of the secular cooling of the earth; (3) from data on the salinity of the sea; (4) from the theory of the disintegration of radioactive matter; (5) from G. H. Darwin's researches of the evolution of the moon. However we attack the problem, we always arrive at the conclusion that the earth has a history dating back hundreds of millions of years.] **E. Pringsheim.** 'Temperaturstrahlung und Lumineszenz.' [A technical article.] **G. Henslow.** 'Ecology considered as bearing upon the evolution of plants.' [The word "Ecology" was invented by Haeckel and means the study of plants and animals in their natural state. It is Ecology which everywhere reveals the origin of species by direct or self-adaptation to new conditions of life. This conclusion derived from the study of plant life is equally true for the whole of the animal kingdom.] **F. Oppenheimer.** 'Wert und Mehrwert—I. Teil: Die Monopol-Theorie des Mehrwertes.' [Cf. his books: *Theorie der reinen und politischen Oekonomie* (Berlin, 1910, 1911); *Die soziale Frage und der Sozialismus* (Jena, 1912); *Der Staat* (Frankfort, 1909).] **E. Naville.** 'La méthode scolastique dans la science du langage.' [The word "scholastic" is not used in a depreciatory sense; it is defined as a method of argument founded on reasoning and not on facts of observation. In modern times the study of living and spoken languages which are rapidly becoming obsolete has begun. This science of linguistics takes care not to construct, by the help of pure reasoning, theories which are logically sound but are only artificial creations.] **R. Petazzoni.** 'La scienza delle religioni e il suo metodo.' [In the usual division of the study of the history of religions, non-civilised peoples are put on the same plane as the civilised peoples of antiquity and of modern times; neither the historical method (which refers to time) nor the comparative method (which refers to space) should be exclusively used. We have not to do with two methods which have to walk side by side, but with a unitary conception which is founded on the nature of the

object—the essentially one and definite religious fact—which is the subject-matter.] Critical note. **A. Levi.** 'Le problème de la morale.' [Concerned with L. Limentani, *I presupposti formali della indagine etica* (Genova, 1912).] Book Reviews. General Reviews. **F. Bottazzi.** 'Sur quelques concept fondamentaux de la chimie des colloïdes.' **A. Van Gennep.** 'L'Iliade, poème économique.' [With reference to Walter Leaf, *Troy, A Study in Homeric Geography*, London, 1912.] Review of Reviews. Chronicle. It should be remembered that, with every number of *Scientia*, there is published a supplement containing French translations of all the Italian, German, and English articles.

RIVISTA DI FILOSOFIA. Anno iv., Fasc. 3, 1912. **Giuseppe Tarozzi.** 'Empirismo filosofico.' [Claims for Ardigò's positivism, to which the writer adheres, an outlook no less inspiring and hopeful than that of the systems which have hitherto monopolised the title of idealistic. Empiricism does not exclude researches into the ultimate constitution of the cosmos; and while admitting as probable that these may finally issue in agnosticism, it still leaves good hope that important additions to our knowledge of the inner and outer world may be made on the way.] **A. Faggi.** 'Il pensiero.' [The modern tendency to regard thought as a mere instrument for material ends has been carried too far. While not altogether giving up the Baconian view we should profit by the teaching of Greek philosophy that thought is an end in itself.] **Giuseppe Paladino.** 'Per l'edizione critica della *Città del Sole*, di Tommaso Campanella.' [The celebrated utopia of Campanella, first written in Italian, was afterwards translated into Latin with various alterations by its author, and in addition to these the different manuscripts and editions of the work offer more or less divergent readings, all of which a critical edition has to take into account.] **Ferdinando Belloni-Filippi.** 'Il Patikasamupada.' [Notes on a recent Italian translation of a Chinese version of a Buddhist Sutta.] **Aldo Mieli.** 'Scienziati e pensatori di Kyrene.' [Herodotus tells us that Kyrene was the seat of a famous school of medicine. It also produced the mathematician Theodorus, the astronomer Eratosthenes, the New Academician, Carneades, and finally the mystical Christian Neo-Platonist, Synesius.] *Recensioni, etc.*

VIII.—NOTES.

FIFTH INTERNATIONAL CONGRESS OF PHILOSOPHY, 1915.

THE First General Circular has been issued, under date March, 1913. The Congress is to be held in London from 31st August to 7th September, 1915, in the buildings of the University. His Majesty the King is Patron of the Congress, Lord Haldane the Honorary President, Dr. Bernard Bosanquet the Acting President, Dr. H. Wildon Carr the Honorary Secretary, and Dr. F. C. S. Schiller the Honorary Treasurer.

The Sections into which it is proposed to divide the work of the Congress are, I. General Philosophy and Metaphysics. II. Logic and Theory of Knowledge. III. History of Philosophy. IV. Psychology. V. *Æsthetics*. VI. Moral Philosophy. VII. Political Philosophy and Philosophy of Law. VIII. Philosophy of Religion. Presidents are to be appointed of each Section.

The Circular is accompanied by an invitation to those who desire to participate to inform the Committee concerning the papers they propose to contribute.

Communications are to be directed to the Secretary of the Congress, H. Wildon Carr, Esq., D.Litt., More's Garden, Chelsea, London, S.W.

MIND ASSOCIATION.

Prof. K. Dunlap, P.O. Box 153, John Hopkins University, Baltimore, U.S.A., has joined the Mind Association since the printing of the April number of *MIND*.